Evolution of a Liberal Education Course Linking Agriculture, the Arts, and Society

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Abstract

A course in the College of Agriculture and Life Sciences at Virginia Tech was developed to meet the goals of the Creativity and Aesthetic Experience area of the required undergraduate liberal education curriculum. "Agriculture, the Arts and Society" began as a small course designed to improve the perception of the arts among agricultural majors. A one-credit, pass-fail freshman-level course, it was accepted into the liberal education curriculum in 2001. Enrollment in the course currently averages about 120 students per semester, with approximately one half of the students being non-agricultural majors. In addition, about 50% of students in the course are classified as juniors and seniors. Over time, appreciation of agriculture has been stressed more, along with an emphasis on the university's goals of graduating life-long learners who can think critically and creatively, and promoting diversity in the university community. Student perceptions of instruction for the course have generally been very good. They also rated appreciation of the subject matter and discipline field as slightly greater than average (2.23 on a scale of 1-less than average to 3-greater than average), which gives an indication that the course is meeting its primary goal of raising awareness of these topics.

Introduction

One of the most important aspects of a college education is exposure of students to a variety of disciplines and ways of knowing, including aspects of culture they may be unfamiliar with. To that end and consistent with changes in curricula across many universities (Boyer and Levine, 1981; Levine and Nidiffer, 1997), Virginia Polytechnic Institute and State University (Virginia Tech) established a set of liberal education or core curriculum requirements to help all undergraduates achieve a broad base of knowledge and a universal set of transferable skills. The current Curriculum for Liberal Education (CLE) consists of seven areas: 1) Writing and Discourse; 2) Ideas, Cultural Traditions, and Values; 3) Society and Human Behavior; 4) Scientific Reasoning and Discovery; 5) Quantitative and Symbolic Reasoning; 6) Creative and Aesthetic Experience; and 7) Critical Issues in a Global Context. Over the past 30 years, a series of campus-wide task forces and committees worked diligently to shape the CLE into a coherent set of courses that meets the overall and individual area educational goals and is congruent with the university's mission and vision as a comprehensive Research One Land Grant university. Because of the university's desire to gather broad-based support for this curricular endeavor, task force and committee members were drawn from across all colleges. In addition, a decision in the early 1990's opened the CLE to courses outside the traditional College of Arts and Sciences. Consequently, several new and existing courses in the College of Agriculture and Life Sciences are now available for students to meet one or more of their CLE requirements.

The curricular goals for students enrolled in a Creativity and Aesthetic Experience course are to: 1) participate in cultural events and activities on campus, in both popular and classical arts; 2) understand how the artists or designers who produce these events and works have shaped their ideas; 3) examine intuitive and metaphorical thought processes and their relationship to the human imagination and other intellectual abilities; 4) explore the interaction of art and society, including the contributions of diverse groups to cultural life, such as women and members of minority groups; 5) study selected classic works of fine and applied arts; 6) participate in interpretive discussions, lectures, and demonstrations led by artists, designers, architects, musicians, and/or performers; and 7) explore connections between the arts and other forms of design and creativity.

A cultural link between agriculture and the arts is imbedded in the philosophy of agrarianism. Historically, humans have sought grounding for their value systems, including an innate attachment to the land. "People of the earth" are at home while working with the soil and animals. To be productive, farmers must nurture the biosphere's creative capacity. By working in harmony with the land, farmers build a cultural aesthetic that reflects a beautiful relationship portrayed in visual landscapes and drawn upon in painting, literature and song. It sustains a biologi-

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cal connection and promotes a world view larger than ourselves. Working from that basis, therefore, we set forth to develop a course entitled "Agriculture, the Arts and Society" to meet the goals of the Creativity and Aesthetic Experience area.

Although there are examples in the literature of discipline-specific courses being available to non-majors and/or satisfying general education requirements (Bradley et al., 2003; Haque et al., 1988; Kazmer, 1991; Kesler, 1997; St. Hilaire et al., 2009; Stephens and Schmidt, 2004), this course is the only one we know of specifically designed to meet a general education requirement by deliberately connecting agriculture and the arts. Our course was first offered in the 1996 fall semester and has evolved over time from a low enrollment (<20) course primarily populated by students majoring in agriculture to a rather large (>120) course consisting of a diverse population of students enrolled in majors across campus (Figures 1 and 2).

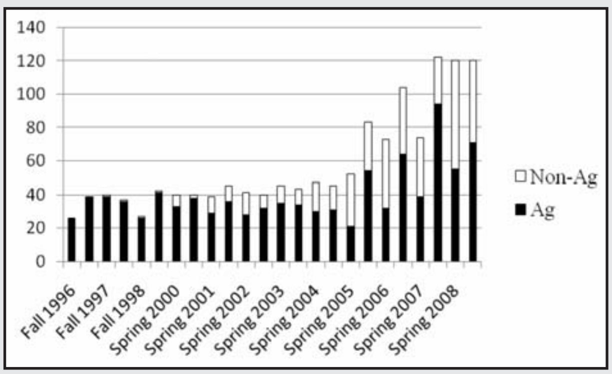

Figure 1. Number of students enrolled in "Agriculture, the Arts and Society" by semester and type of major (Agricultural and Non-Agricultural) from fall semester 1996 through fall semester 2008.

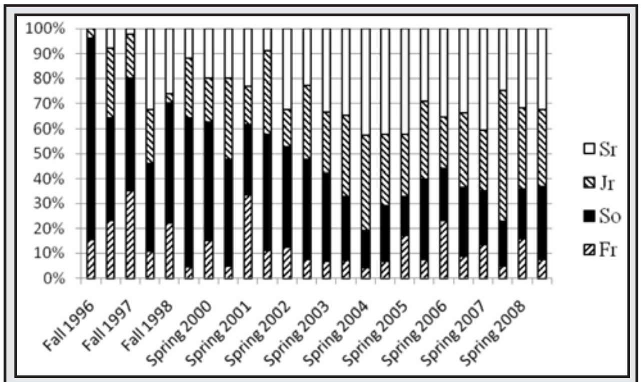

Figure 2. Enrollment percentages in "Agriculture, the Arts and Society" by academic level (Freshman, Sophomore, Junior, Senior) and semester.

Methods

Course Description. "Agriculture, the Arts and Society" is a one-credit (semester) freshman-level course offered Pass/Fail only. Grades are determined by successful completion of assignments, a final exam essay, and class participation. Unlike many CLE courses, it is not designed to provide depth in a specific area of study. Instead, the course serves as an introduction to the relationships among agriculture, society and the arts, all of which are integral components of civilization. The overall goal is to stimulate critical thinking about topics that may be unfamiliar to the students, such as making the connection between agriculture and the arts; exploring how different people react to those connections; and reflecting on what that might mean for them personally and for society in general. Designed specifically for the Creativity and Aesthetic Experience area of the CLE, the course objectives reflect the area goals closely and have changed very little since inception of the course (Figures 3 and 4).

ALS 2984 - SPECIAL STUDY
Creative and Aesthetic Experience: Focus on Agriculture
Proposed Syllabus Spring 1996

Course Objectives

- Participate in cultural events and activities on campus, in both popular and classical arts
- Develop an understanding of how artists or designers shape their ideas into these events
- Explore the interaction of art, agriculture and society
- Study selected classic works of fine and applied arts
- Participate in interpretive discussions, lectures and demonstrations led by artists, designers, architects, musicians, and/or performers
- Understand the connection of agriculture to the fine arts, both in tradition and in contemporary life

Course Outline

Perceiving the visual and performing arts	15%
Musical connections	10%
Theatrical/film connections	10%
Visual art connections	10%
Local experiences	10%
The Will Rogers Follies	
NRV Symphony	
Field trip/paper (Mellon Gallery in Richmond)	20%
Discussion of experiences	15%
The arts and the human experience	10%
	100%

Course Grading

Grades are assigned based on participation in lecture, attendance of events and papers submitted to instructors. P/F only.

Figure 3. Syllabus of the course "Agriculture, the Arts and Society" when it was taught as an experimental course in Spring 1996, edited to omit details on course administration.

ALS 1004 Agriculture, the Arts and Society
Spring 2009

Course Objectives:
Students will:

- explore the interaction of the arts, agriculture and society;
- participate in cultural events and activities;
- study selected works of fine and applied arts;
- develop an understanding of how artists shape their ideas;
- appreciate the connection of agriculture to the fine arts, both in tradition and in contemporary life.

Course Structure:
This course is designed to explore how the arts have reflected the role of agriculture in society over time. It also should give you a better appreciation of how the arts can be part of your life. The focus is on participation in and discussion of selected topics, events and works. The course can be a lot of fun, but it takes your participation to work; therefore attendance and completion of in-class assignments is required, along with outside assignments. The final exam will be an essay on the semester's experiences, how they relate to Area 6 goals, and your reactions to them.

Attendance Policy:
Your grade in this course is based on participation and completion of assignments. You cannot pass the course if you miss more than three class meetings. Please be on time for class: it is rude to our guest speakers to be late.

Textbook:
There is no textbook for the course. You will need to purchase your ticket for *Step Afrika*. Information about assignments, links to interesting events, etc. will be on Blackboard.

CLASS SCHEDULE

January 21	Introduction: Agriculture And The ARTS??
January 28	Thinking Outside The Box
February 4	Drawing On The Right Brain
February 11	Introduction To Stepping: Dr. Elizabeth Fine
February 24	Step Afrika
February 25	I Don't Know Art…
March 4	The Art Of Photography
March 18	Agriculture And Art
April 1	Agriculture And Music
April 8	Photographic Portfolios
April 15	A Way Of Life? Dr. Mike Ellerbrock
April 22	Creativity And Agriculture
April 29	FINAL EXAM—In Class Essay

Figure 4. Spring 2009 syllabus for "Agriculture, the Arts and Society", edited to omit course administration details.

Topical Origins. Two books by R. L. Willham *(The Legacy of the Stockman, 1985; and Taking Stock, 1987)*, written as textbooks for a livestock heritage course at Iowa State University, were influential in defining the concept of "Agriculture, the Arts and Society." The course was organized

(Figure 3) using the model established by the first course accepted into the Creativity and Aesthetic area of the CLE at Virginia Tech. Approximately half of the course consisted of lectures on the visual and performing arts, including music, theater and/or film, painting, sculpture, and photography, using examples that depicted agricultural themes such as planting and harvesting or prize-winning livestock. Another one third of the course focused on locally-available experiences such as art exhibits, symphonies, plays, and other such events, and/or field trips to nearby cities, the goal being to choose events each semester that focused on agriculture. The final 20% of the original course consisted of discussions regarding the assigned event(s). Students also were required to write a short report summarizing the event and reflecting on it.

Course Topics, Assignments and Final Essay. While many topics in the course are taught every semester, each semester the course content is built around one or more campus and/or community cultural events students are expected to attend. We have learned that the best format is a traditional once-a-week class session with fairly independent topics (sessions) scheduled around the required event. One semester, the course was taught as a half-semester course that met two hours a week for eight weeks. Although a number of students liked the shorter time frame (data not shown), it was more difficult to keep their attention for two hours and the topics did not flow as well.

Sessions. “Agriculture, the Arts and Society” begins with a session entitled “Agriculture and the ARTS?!” (Figure 4; January 21) which sets the tone for the entire semester: Open up the box and start thinking outside of it. In addition to simply asking students to keep an open mind, ten notions on teaching (Peterson, 1967) are presented and students are asked to think about questions like, “What possesses people to write poetry about sheep? Or sculpt prize-winning livestock?” and “Can garden design be considered a link between agriculture and art?” As the course evolved and enrollment and diversity increased (Figure 1), the topic was expanded to another session that occurs toward the end of the semester (Figure 4; April 15). The additional session positions the course in the larger context of the university goals of graduating life-long learners who can think critically and creatively, and promoting diversity in the university community. In particular, this session helps break down some of the stereotypes about majors (agriculture vs. performing arts, for example), as students debate values embodied in Thomas Jefferson's agrarian ideology (Knutson et al., 1983).

The second session of the semester (Figure 4; January 28) usually is a lecture on the principles and concepts embodied in the terms *creativity, aesthetics*, and art so everyone is working with the same definitions. Definitions of agriculture were soon added, and for the past several semesters a brief overview of the scope of agriculture in the U.S. has been a part of the lecture. Another session (Figure 4; February 25) is devoted to principles of evaluating works of art: how that evaluation necessarily contains elements of subjectivity as well as objectivity, how tastes in art change over time (both for individuals and for society), and how individuals can appreciate art they may not personally like (Fabun, 1970). Students enjoy debating what constitutes “good art” versus “bad art,” and are encouraged to bring examples to class to make their case. Typically, students walk away from this session with a much better understanding of why there are so many differences of opinion about what constitutes art, let alone how to judge its aesthetic value.

In 2001, the topic of right-brain, left-brain thinking (Figure 4; February 4) was added to the early weeks of the semester. Many students who take the course are science and engineering majors and consider themselves to be straight-line (logical) thinkers. This session gives students some insight into why different people have different reactions and thoughts about art and artists. Based on the books *Whole Brain Thinking* (Wonder and Donovan, 1984) and *Drawing on the Right Side of the Brain* (Edwards, 1979), an integral part of the session is an exercise in which students draw a picture upside down to help “turn off” the logical (left) side of the brain, allowing the creative (right) side more freedom.

Three other topics with a direct focus on agriculture that have been a part of the course from the beginning include music, paintings and sculptures, and photography (Figure 4; March 18 and April 1). There are almost limitless examples of agricultural themes in each of these art forms, although they can be harder to find in contemporary compositions than in classical works. The challenge has been to present the topics so that students are interested and engaged, as they are less likely to connect with those classical examples than with examples from “their” music and visual art. The hymn “Bringing in the Sheaves,” for example, does not resonate very well with students who do not even know what a sheave is. A recent (2007) course addition is a class session on the creativity and aesthetics of the university horticulture gardens (Figure 4; April 22), which includes a field trip to the garden to find some of those elements (examples include combinations of plantings for texture and color, angles of flower beds inviting visitors to step into the garden, and the sound of water running over rocks in a manmade stream). For a significant number of students, this is their first visit to the garden, which is near the football stadium but on the edge of campus away from the main academic buildings.

Because of the flexibility of the course, it has also been possible to include specific topics on an ad hoc basis. These topics keep the course fresh from an instructor's viewpoint and often give students chances for unique experiences. Examples of such topics include horticulture and art (floral design), the art of tying flies for fly fishing, poetry about agriculture (e.g., Baxter Black), folk dance (square dancing, for example), arts in the community (a number of artists in our area have strong agricultural ties), corn field sculptures, equine art, and art quilts. When enrollment was smaller and consisted primarily of agriculture majors, a panel of faculty and staff in the College of Agriculture and Life Sciences who pursue one or more aspects of the arts as an avocation illustrated through their personal experiences that it is possible to nurture a talent for the arts, yet pursue a professional career in a different area.

Assignments. Participation in cultural events on campus is one of the CLE goals for students taking courses in the Creativity and Aesthetics area so there is at least one outside assignment each semester, although not necessarily on campus (Figure 4; February 24). For each outside assignment, at least one lecture before or after is devoted to discussion of the event (Figure 4; February 11). When possible, a principal participant is invited to speak to students during that class period. In their required reflection paper, students are asked to include a summary of the event and their reactions to it, as well as observations about the environment in which it took place, how other audience members reacted, and whether or not they identified any direct or indirect references to agriculture. The student response to the last question often changes by the time the in-class discussion of the event ends; many students have no idea how agriculture permeates society, past and present, which means it often shows up in the arts in subtle ways. We have attained one goal of the class if students find themselves looking for those connections.

Outside assignments have included field trips to the Virginia Museum of Fine Arts in Richmond, Virginia, which has a fine collection of livestock sculptures; attendance at a Baxter Black (cowboy poet) performance; on-campus events such as the Theatre Department's productions of Chekhov's “The Cherry Orchard,” about the loss of a family's estate to suburban development; and traveling productions of Rodgers and Hammerstein's “State Fair,” and “A Streetcar Named Desire” by Tennessee Williams. There are indirect references in “Streetcar” to how changes in southern agricultural systems impacted society in cities like New Orleans but those references must be pointed out to students who are too young and not from that background to pick them up. In 2006, students critiqued works in “Gobble de Art,” Blacksburg's entry in the fiberglass art parades (Chicago's “Cows on Parade” and Cincinnati's “Pigs on Parade” were among the first such events). More than 40 Virginia Tech mascot Hokie Bird statues were personalized by various artists and put on display on campus and in town for an extended period of time. Several of the statues incorporated agricultural themes, which provided a nice springboard for discussions in class. Another semester, Dr. James I. Robertson, a renowned Civil War historian and Virginia Tech Distinguished Professor of History, collaborated with the Music Department to present “Music and Memories of the Civil War: A Living Legacy,” a multi-media performance that contained many allusions to the agrarian lifestyles on both sides of the conflict. A year later, “Distant Echoes: Black Farmers in America,” a traveling photography exhibit, was on campus. Students who attended that exhibit became acutely aware of the decline of black-owned farms, which are disappearing at an alarming rate (Ficara, 2006).

Occasionally students have been asked to attend a performance in Roanoke, Virginia, about an hour from the Blacksburg campus, when there are direct connections to agriculture in the performance. The musical “Oklahoma” is one example. When an on-campus or local artistic event with a direct connection to agriculture was not available, students were responsible for finding and gaining approval to attend and report on an appropriate cultural event. This assignment was not easy to manage even with a smaller class. As class size approached 100, it became necessary to choose one event for all students to attend. Even if it does not directly relate to agriculture, an event may be chosen to generate discussion about the interaction of the arts and society, and how students of varying majors perceive their participation in such events. The semester following the April 16 shootings at Virginia Tech, for example, students attended “A Concert for Virginia Tech” with a discussion of the concert and their reactions to it in the following class period.

One assignment integral to the course is an experiential photography project that allows students to take on the roles of artist, audience and critic. The project consists of four phases: a lecture on basic principles of photographic composition; turning students loose with cameras; an evaluation of the results in the classroom; and a public display of their best photographs. The introductory lecture (Figure 4; March 4) includes a PowerPoint presentation illustrating some basic composition principles used to compose outstanding photographs. These principles include the rule of thirds (try to make sure the object of interest is off center); diagonals (explicit, such as a fence line, and implicit, such as the incline of a hill within the image); common elements (a field of tulips, for example); vertical orientation (turn the camera 90°); and the impact of lighting (back lighting, side lighting, early morning light, sunset, etc.). In addition, students are told to try for at least one creative shot as rules are made to be broken, and to avoid inclusion of people in the images.

When the course started, inexpensive box cameras were provided to students who then turned them in a week later. The film was developed locally, and the prints were given back to the students the next class period. The quick turnaround time kept the project fresh in the minds of the students, and they always were eager to see how their efforts turned out. To illustrate variation in peoples' reactions, students were instructed to choose their top three picks from among their images, identify them on the back, then shuffle the photographs and hand them to a neighbor. That neighbor was instructed to choose his or her top three picks in the stack then compare those rankings with the rankings penciled in by the photographer. In most cases, there were at least a few pair changes in rankings and sometimes an entirely different set of three photographs was chosen. The primary drawback to this system was that it was difficult to share specific photographs with the entire class since 4x6 inch photographs are difficult to see at any great distance. For the last phase of the project, students were introduced to the concept of public scrutiny by submitting their best image to the class collection that was then placed in a display case outside one of the busiest lecture halls in the college. All photographs were identified with the student-photographer's names, of course.

Beginning with the spring 2004 semester, students were allowed to use their own digital cameras to complete the assignment if they wished, turning in unedited images on CDs. By this time, it also was cost effective to get the box camera film developed into prints and burned on a CD, which made it possible to select images for display to the entire class in a PowerPoint presentation (Figure 4; April 8). In fall 2005, aided by a small grant for the purchase of 15 digital cameras and use of the digital dropbox feature of the Blackboard course software, the photography assignment was based completely on digital images. To deter cutting and pasting of images from the Internet, or of borrowing images from a friend, image files (not the images themselves) are required to have date taken information included under list details, and students must sign a copyright statement indicating that the images they are submitting are their own.

Final Exam. The final exam for "Agriculture, the Arts and Society" is an open-book essay that is written during the last class. Students are told ahead of time the essay should summarize what they learned in the course, and address how well the course met the stated objectives and goals for the Creativity and Aesthetic area. This essay gives students a chance to reflect on and internalize what was accomplished during the semester. The essay also provides the instructor with feedback on student perception of the various topics and how well the topics connected to the course objectives and the Creativity and Aesthetics area goals. Finally, the essays provide information for periodic assessment of the course by the university curriculum committee on liberal education.

Data sources. Enrollment data (numbers of students, gender distribution, majors and academic levels) for "Agriculture, the Arts and Society were available for all terms from fall 1996 through fall 2008. For purposes of determining numbers of agricultural majors, programs in the College of Natural Resources were included as agricultural majors, as were Biological Systems Engineering (BSE) majors. Although technically majors in the College of Engineering, BSE students spend much of their time in the College of Agriculture and Life Sciences. Summaries of anonymous end-of-term student perceptions of instruction (teaching evaluations) were available for each term except spring 2007, when the April 16 shootings occurred. Additionally, there were written comments from the evaluation forms themselves. At Virginia Tech, a standard form is used across all courses to measure student perceptions of instruction. Most questions use a scale of 4=Excellent, 3=Good, 2=Fair, 1=Poor, but others are rated as 1=Less than Average, 2=Average, or 3=More than Average. Students are also given space to provide written comments. In "Agriculture, the Arts and Society" the evaluation forms are filled out at the beginning of the last class period, just before students write their final exam essay. The instructor is not present while students are filling out the forms, nor is the instructor permitted to see the results until after grades are submitted.

Results and Discussion

Enrollment trends. As shown in Figure 1, "Agriculture, the Arts and Society" started as a small experimental course for agriculture majors. It quickly grew to an enrollment of 40, where it was capped until fall semester 2005 when enrollment was allowed to expand because requests for the course far exceeded the seats available. It is now taught in a classroom with a capacity of 130 students; with attrition, enrollment currently averages 120 each term. Given the number of requests for the course (data not shown), it would be possible to increase course size again but management of course logistics becomes more difficult as class size increases. Course policy has already been modified to accommodate class size: class participation is an important component of the grade and attendance is recorded using spot check roll calls in conjunction with in-class assignments that are turned in at the conclusion of each session.

After its acceptance in the CLE in 2001, the number of non-agricultural majors in "Agriculture, the Arts and Society" increased over time, rising as high as 59% in spring semester 2005 (Figure 1). There has been a tendency for a higher proportion of non-agricultural students to be enrolled in the spring than the fall. Fall semester 2007, with only 23% non-agricultural majors, was unusually low. One factor contributing to the increase in non-agriculture majors is that the course is the first one listed in the CLE Guidebook. Another reason, based on comments from both anonymous student evaluations and the final essay, is that students who take the course tell their friends about their experiences. That word of mouth may also help explain why non-agricultural students enroll in higher numbers in the spring compared to the fall.

In any given semester, students from the professional colleges (Agriculture and Life Sciences, Engineering, Natural Resources, and Business) make up the majority of the class, primarily because they need only one credit from this CLE area whereas students in the other colleges are required to take three credits in the area. For the most part, students from the colleges of Science, Architecture and Urban Studies, and Liberal Arts and Human Sciences are taking the course as a free elective. The mix of majors and personal backgrounds adds a rich diversity of perspective to class discussions. The course syllabus emphasizes an expectation of civil discourse at all times in the class, as embodied in the Principles of Community posted in the room and available on the web (Virginia Tech, 2005).

Class enrollment over time by academic level (Freshman, Sophomore, Junior and Senior) is shown in Figure 2. The first time the course was taught, the requirement for the Creativity and Aesthetic Experience was being phased into the curriculum and seniors were exempt. In addition, the course was taught as a special study, so most students were not aware of it. Over time, the proportion of upperclassmen steadily increased; since spring semester 2003 juniors and seniors have made up at least 60% of the enrollment of the freshman-level course except for one term. At least two factors contribute to this distribution. First, because the course fills each term, some students must try several times before they get a seat. Second, as borne out in surveys of student perceptions of the importance of the arts as part of their undergraduate education (data not shown), fulfilling this requirement is not the highest priority for many students and each semester, the course includes several graduating seniors. These upperclassmen often make excellent contributions to class discussions, but they also can be very difficult to reach as they are in the class simply to fulfill a requirement they do not really care about.

In recent years, freshman enrollment has tended to be higher in spring compared to fall (Figure 2). This appears to be a function of course demand. Returning students can request the fall course in the spring and it often fills before freshmen begin signing up for courses during the summer, forcing them to rely on the drop-add process to enroll in the course. During registration for spring semester, freshmen are on an equal footing with everyone else.

Student perceptions of instruction. As indicated in Table 1, student perception of instruction for "Agriculture, the Arts and Society" has generally been very good. Even in the larger sections, students perceive that they are treated as individuals. They also perceive on average that the out-of-class assignments (attending a cultural event and the photography project) are good to excellent. As might be expected in a freshman-level pass-fail course, they also rate the time and effort required for the course to be less than average. On the other hand, given that, in general, students rate appreciation for the arts as less important than many other aspects of their undergraduate careers, the fact that they rated appreciation of the subject matter and discipline field as slightly greater than average gives an indication that the course is meeting its primary goal.

Table 1. Student Perceptions of Instruction for "Agriculture, the Arts and Society" Averaged over Selective Periods During a 12-Year Time Frame

Item	1996-2008[x]	2005-2008[y]	All College Courses[z]
Concern and respect for students as individuals (1=Poor; 4=Excellent)	3.68	3.70	3.63
Overall rating of this instructor (1=Poor; 4=Excellent)	3.63	3.62	3.4
Educational value of out-of-class assignments (1=Poor; 4=Excellent)	3.31	3.25	3.30
Time and effort required (1=LT Avg; 3=GT Avg)	1.29	1.27	2.20
Appreciation of the subject matter and discipline field (1=LT Avg; 3=GT Avg)	2.23	2.13	2.41

[x]Averages of student perceptions of instruction from fall semester 1996 through fall semester 2008.
[y]Averages of student perceptions of instruction from fall semester 2005, which is when class size began increasing, through fall semester 2008.
[z]Averages of student perceptions of instruction for all courses taught in the College of Agriculture and Life Sciences from fall semester 1996 through fall semester 2008.

Evolution of the course. "Agriculture, the Arts and Society" began as a small course designed to improve the perception of the arts among agricultural majors. The goal was to explore how the arts have reflected the role of agriculture in society over time. The idea was that relating the arts to their chosen profession would give agriculture majors a positive experience in an area most of them avoided. The course was an experiment that had its genesis in the lead instructor's interest in the arts, and the convergence of changes in university policy with a fortuitous link between faculty in the College of Agriculture and Life Sciences who also happened to be talented photographers, musicians and painters. Once begun, it became easier and easier to show the connections between agriculture and the arts, as well as agriculture and society, providing impetus to turn the special study into an approved CLE course and giving students a better appreciation of how the arts and agriculture can be part of their lives. For some students, this is simply a better ability to recognize that different people like different art and that there are viable careers in agriculture. For others, it is almost literally permission to practice their avocations for the arts even as they pursue a professional degree.

As courses often do, "Agriculture, the Arts and Society" has also changed over time to better meet students where they are and draw them into the conversation. With enrollment of non-agricultural majors reaching 50% in recent years (Fig. 1), appreciation for agriculture has been stressed more: the course has increasingly served as a brief introduction to the role of agriculture in today's society. For many of the students enrolled in the course, this may be the only direct positive exposure to agriculture they will receive during their undergraduate careers.

Additionally, more explicit emphasis has been placed on the university's stated goals of graduating life-long learners who can think critically and creatively, and promoting diversity in the university community. We also have been very fortunate in identifying outstanding guest speakers among faculty and staff throughout the university community, and from the larger community beyond campus. Some of these speakers have become regular contributors to the course; others directly impacted only one set of students but their contributions continue as the course continuously evolves.

From a pedagogical standpoint, evolution of the course is particularly evident in the increased time devoted to classroom participation and discussion of selected topics, events and works in lieu of traditional lectures. Of course, it has been necessary to focus on quality rather than quantity to attain these goals. For example, in the session on art and agriculture, a large set of slides depicting agricultural themes in paintings over the centuries has been replaced with a smaller set of carefully chosen examples that can be used as part of a class discussion on the depiction of agriculture by artists in different eras. It also has been difficult at times to engage students; many of them would rather sit and listen (or text or check e-mail) than actively participate. However, even in a large classroom with fixed seats, small group discussions are possible, and students are sometimes asked to "vote with their feet": the entire class has been asked to literally stand up and place themselves along the wall on a continuous scale from extreme dislike to extreme like of a particular topic under discussion. Other ways of encouraging participation include short answer assignments that are turned in at the end of the class, and requesting that all electronic devices be turned off during class. A spot check of the roll also encourages students to attend class.

Where will this go in the future? A few existing courses in the College of Agriculture and Life Sciences have been added to the CLE in other areas, and Floral Design was a welcome addition to this area, but there has not been much interest in developing agriculturally-oriented general education courses at Virginia Tech. Part of that may be lack of ease or agreement with the goals of the CLE, but most of that reluctance is probably because of lack of resources to develop and teach new courses that meet specific goals in a particular area of the CLE. Indeed, the opposite is true: in the past two years there have been more requests university-wide to remove courses from the CLE than to add to it. It has been almost 10 years since the last comprehensive review of the CLE and that process is now getting underway so there may be changes to the CLE in the next five years or so. The odds, however, are that any changes to the CLE will not impact this course in the foreseeable future. There are no plans to discontinue the course but there are also no plans to increase class size unless new ways of utilizing technology are incorporated. Electronic clickers have become more and more popular as a way of stimulating class participation but the systems still have glitches and it is hard to justify asking students to pay for something that will be used a maximum of 15 times in a one-credit P/F course. As discussed earlier, the photography project is now 100% digital but it still takes a lot of time to sort through 120 sets of images and get them into a PowerPoint presentation. An electronic photography gallery that could permanently display students' work would be a nice addition to that project but we are still working on that aspect. Scholar, which will soon replace Blackboard as the university's online system for learning, holds some promise in that regard.

Summary

"Agriculture, the Arts and Society" was developed to help students in agriculture see connections between their chosen profession and the arts. It has since expanded to include non-agricultural majors. It reinforces the evolutionary principle that domestic agriculture enabled the birth of the arts and culture among primitive societies, leading to the diversity of aesthetic values and creative experiences we know today. Academically, it reflects our institution's wisdom in opening the CLE to courses outside the traditional arts and sciences departments. Because it was designed specifically to meet the educational goals for the Creative and Aesthetic area of the CLE, "Agriculture, the Arts and Society" was one of the first courses in the College of Agriculture and Life Sciences to be accepted as a new course into the university's CLE. Its success, as measured by student demand and student perceptions of instruction, indicate that students enjoy the material and the way the course is taught, and that they leave the course with a better understanding of the connections between agriculture, the arts, and society. Results of these efforts show that non-traditional courses can be developed within agriculture that integrate those topics deemed important from a broadening perspective. More courses like this should be considered when meeting liberal education objectives in the future, but the issue of resources must be addressed.

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