

Food for Thought: A Collaborative Effort to Incorporate Food and Agriculture Disciplines into a Liberal Arts Curriculum

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Introduction

Food is perhaps the weak link in our pursuit of social, political and environmental sustainability. With a world population approaching 9 billion people, issues related to food including hunger, obesity, environmental sustainability, food safety and food security pose critical problems that demand responsible solutions.

Historically, liberal arts colleges have done little to address the social implications of agriculture or related disciplines. In response, seven faculty from a variety of disciplines adapted an interdisciplinary general education course to cultivate student learning of these issues. Over a three year period, faculty from psychology, religion, English, environmental science and agronomy have created CORE 122 – Modern Citizenship: Food for Thought

Course Development

The Core Program at Queens is a three-year interdisciplinary sequence of four courses designed to develop critical and civic thinking skills necessary to lead noble lives, pursue productive careers and become responsibly active citizens in a global context. The second semester freshmen course CORE 122 – Modern Citizenship, was developed to give students an opportunity to experience what it means to be an active and responsible citizen in the modern world. By the end of this course students should be meet the following learning outcomes:

- Students will be able to demonstrate an understanding of the need for social and civic responsibility.
- Students will have engaged in community service and will be able to explain the impact of Queens' service projects.
- Students will be able to construct and evaluate arguments.
- Students will be able to understand a problem, generate ideas, and plan for solutions
- Students will be able to demonstrate an understanding of key American issues and their underlying causes and impacts.

Four sub-topics; Education, Environment, Food and Agriculture and Media were used as the context for discussing and studying examples of modern citizenship. Following best practices in teaching and learning service-learning and experiential learning activities and pedagogy was integrated into the CORE 122 – Modern Citizenship curriculum. These methods have all been proven to help students make connections to real-world problems and situations.

Course Structure

Over a three year period (2008 – 2010), 12 to 15 sections of CORE 122 – Modern Citizenship were offered at Queens University of Charlotte. The course was divided into three distinct parts (Table 1). The first (3-4 weeks), Modern Citizenship and third (4 – 5 weeks), Citizen's Forum followed a common schedule and syllabus, giving the students in all sections a common experience. The second portion (6 – 8 weeks) allowed each section to explore what it means to be an active and responsible citizen in the modern world, by focusing on issues in their sub-topic.

Table 1. Schedule and Structure of CORE 122 – Modern Citizenship. The schedule given below is for the sections, titled "Food for Thought," that focused on issues in food and agriculture.

Part One: Modern Citizenship

Questions discussed and answered in this section include:

- Week 1: How have the definition and cultural meaning of citizenship changed over time?
- Week 2: What are the rights and responsibilities of American citizenship?
- Week 3: How do we extend and protect our rights?
- Week 4: How have the economic, technological and globalizing transitions of the modern era challenged the modern practice of citizenship?
- Week 5: How can we remain active American citizens in a rapidly changing and expanding society?

Part Two: Food for Thought (sub-unit exploration)

Topics and issues discussed include:

- Week 6: What the World Eats
- Week 7: Government and Food: Food Policy
- Week 8: Nutrition and Hunger
- Week 9: Eating Disorders and Food Culture
- Week 10: Where Does Our Food Come From? Conventional and Organic Farming Systems
- Week 11: Genetically Modified Food and Biotechnology
- Week 12: Food and Worker Safety

Part Three: Citizen's Forum

Weeks 13 – 15: Students practice modern citizenship by participating in a model Congress known as the Citizen's Forum (Figure 1 and Table 2).



Figure 1. Students participating in the Citizen's Forum

Assessment Methods

A number of assignments and assessment tools involving experiential and service learning were developed and used to assess student learning (Table 2). To determine if specific course objectives were being achieved a rubric was developed and applied to the Citizen's Forum paper (Figure 2). Results for food and non-food (education, environment and media) sections of CORE 122 – Modern Citizenship for the last two years are presented in Figure 3.

Table 2. Assignments and projects used to assess student learning in CORE 122 – Modern Citizenship: Food For Thought.

Menu Assignment: Can a family eat on \$131.50? (Handout 1)
Students develop a healthy menu for a single parent with two children receiving food stamps and shopping at a major grocery store. Students are then asked to shop for the same menu at a second and different store (i.e. box store, discount store, ethnic grocery store). Students evaluate the healthiness and cost of their food choices.

Service Learning Project (Handout 2)
Students identify a need or problem that needs to be addressed. As a class students then develop, propose and carry-out a service project that addresses the problem. After the project students write a short paper reflecting on their service learning activity and draw conclusions about citizens' responsibility to participate actively in their communities.

Citizen's Forum Paper (Handout 3)
Students identify and research a problem or issue that needs to be addressed. In their paper students are expected to present the issue objectively and should include multiple points of view. In proposing a solution to their problem or issue students should identify multiple solutions and justify why one solution is better than the others. A rubric (Handout 3b) was used to evaluate the level of critical and civic thinking exhibited in the paper.

Citizen's Forum (Handout 4)
Each section (covering all sub-topics) identify a particular issue in their sub-topic (i.e. hunger, food safety, etc.) and develop a proposal individually (paper) and as a class (forum) to address the issue. Students participate in a model Congress where they present their proposal as "bills" that they will vote to approve or disapprove (Figure 1).

A. Definition of Problem	_____
4	Essay states the problem clearly and identifies underlying issues.
3	Essay adequately states the problem.
2	Essay defines the problem too generally.
1	Essay fails to identify the problem.
B. Presentation of Points of View	_____
4	Essay presents in detail multiple perspectives on the problem.
3	Essay presents several perspectives on the problem.
2	Essay presents more than one perspective.
1	Essay presents only one perspective.
C. Collection and Analysis of Information	_____
4	Essay collects appropriate sources and gives in-depth analysis.
3	Essay collects adequate information and performs basic analysis.
2	Essay inadequately collects information with little analysis.
1	Essay collects no viable information and/or offers no analysis.
D. Plan for Solutions	_____
4	Essay provides a clear and concise description of solutions.
3	Essay provides adequate descriptions of solutions.
2	Essay inadequately presents solutions.
1	Essay does not address solutions.

Figure 2. Citizen's Forum paper rubric used assess specific course objectives.

Results and Conclusions

On the Citizen's Forum paper, students in Food for Thought sections performed significantly better than students in other sections on 3 of 4 categories assessed with the rubric. Significantly more Food for Thought students scored 3 or higher in identifying a problem ($\chi^2=3.04$, $df=1$, $p=0.08$), presenting multiple points of view ($\chi^2=5.34$, $df=1$, $p=0.02$), and analyzing information from reliable sources ($\chi^2=6.19$, $df=1$, $p=0.01$).

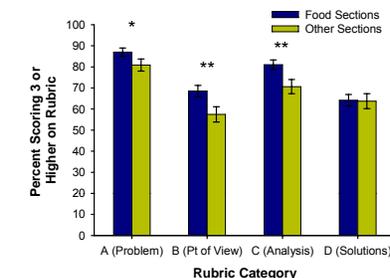


Figure 3. Results from the application of the Citizen's Forum Paper rubric (Figure 2), on papers from sections of CORE 122 – Modern Citizenship devoted to topics in food and non-food (education, environment and media). * Significant at $p=0.10$ using Chi Square test ** Significant at $p=0.05$ using Chi Square test

• Assessment data (Figure 3.) indicate that using topics and issues in food and agriculture help students understand the need for social and civic responsibility, construct and evaluate arguments and understand key issues and their underlying causes and impacts facing Americans today.

• Course evaluations (not shown) indicated that students perceived that the course, CORE 122 – Modern Citizenship: Food for Thought, significantly increased their understanding of issues facing the US and improved their ability to think critically and civically.

• Yearly assessment data and course evaluations indicate that the course may serve as a model for incorporating food and agriculture into a liberal arts curriculum.

