

A Course Description

FS-201 Man's Food

University of Florida

Howard Appledorf

As reports of the world food situation recently moved from the back pages of newspapers to the front-page headlines, food-related topics have been increasingly mentioned in liberal arts and business courses at many American universities. Obviously the world food problem, once discussed and studied primarily in agricultural courses, has rapidly become a fashionable topic in such nonagricultural areas as biological sciences, business, and anthropology and an area of concern of more and more students not inclined toward agriculture. This situation presents a challenge, and an opportunity to the agriculture colleges of today.

While many agriculture curricula exist in America, many of these programs are centered in the land-grant colleges which sometimes locate their agriculture departments out on the farm, far removed physically from the general arts and education programs. This presents a challenge to agricultural educators because proper presentation and awareness of the reasons for and possible solutions to the world food problem require accurate and factual approaches to what is primarily an agricultural problem.

The expertise to deal with these matters is often located in a remote branch experiment station while the students are miles away, having their questions answered by people not equipped to deal with them realistically. One needs only to mention the current trend toward models of agricultural production based on "organic" gardening and the one-sided attacks against agricultural chemicals in general. We in agriculture have the responsibility to provide accurate agricultural education to any student who seeks it, and we have an even greater responsibility to mankind to ensure that biased interpretations of, and quick solutions to, an extremely complex multifaceted world food problem do not jeopardize the chance for applied technology to save the world from massive famine and starvation.

The present world food crisis also presents agriculture with an unusual opportunity to expose many students with urban backgrounds and a general misunderstanding of modern agriculture to the realities of our diverse disciplines and to attract them with the challenging opportunities that an agriculture career can provide. Lecturing to thousands of students has made it evident that many young people feel that food originates in the

local supermarket. We cannot allow this trend to continue.

With these thoughts as background, this paper constitutes a report of FS 201, Man's Food, a general survey course offered at the University of Florida. FS 201 is a service course designed primarily for nonagriculture, nonscience majors. It is intended to make the student more aware of food from its production to ultimate utilization and human consumption. The motives for developing FS 201 differed from simply presenting the world food problem to a mass audience, and the experience gained is worth reporting. It is hoped that our success will motivate others in agriculture to use the current food crisis as a reason to develop similar survey courses with the secondary goal of attracting young people to ensure the survival of our individual disciplines.

The University of Florida

The University of Florida in Gainesville is somewhat unusual in that the main campus is the setting for 18 colleges. Agriculture is in immediate proximity to medicine, law, business, education, arts and sciences, journalism, and 10 other colleges. Our faculty intermingle and our students intermingle. Today, within one mile of the writer's office, there are 27,000 students of various backgrounds and interests.

In 1969 the food science department had only two undergraduate majors. Although this was prior to the current budgetary considerations regarding enrollment and student productivity, our faculty agreed that on a campus of then 19,000 students we should and could do better. At the same time, the topics of nutrition and food began to generate greater interest in our general society. This attention was reflected in governmental investigations into hunger in America and the appearance on television of a rash of nutrition experts, who often expressed food and nutrition misinformation rather than facts. The popular press likewise focused on topics related to food and health and our society was becoming more aware that food is more than something to be eaten. Paralleling the current interest in the world food problem, interest in food, nutrition, and health suddenly increased on our campus.

The food science faculty decided to use the prevailing student attitudes to help develop our teaching program. We already had an introductory food science course but it was designed for agriculture majors and students already committed to food science. We decided to redesign this course to try to reach students from more diverse backgrounds, first, to combat much of the misinformation being presented and, second, to perhaps interest undecided students in food science as a career.

The Course

FS 201, Man's Food, was designed to make the student aware of all aspects of food. It is primarily a lecture course dealing with the topics of nutrition, food technology, food safety, and domestic and international food issues. The course content is a result of considerable revi-

Howard Appledorf is associate professor of nutrition in the Food Science Department, Institute of Food and Agricultural Sciences, University of Florida at Gainesville.

sion due to student feedback through both individual discussion and student evaluation. The course is designed to answer prevalent questions and the lectures deal with the topics listed in Table 1.

Table 1 Lecture Schedule for FS 201 — Man's Food, Spring 1975

April	1	Introduction
	3	Nutrition
	8	Body composition, water
	10	Energy
	15	Carbohydrate
	17	Fat
	22	Protein
May	24	Vitamins
	29	Minerals
	1	Digestion, absorption
	6	EXAMINATION
	8	Food habits
	13	Food spoilage
	15	Food preservation
June	20	Food poisoning
	22	Food quality, appetite control
	27	Federal food law, consumer protection
	29	World food problem
	3	Movie <i>Hungry Angels</i> , kwashiorkor
	5	EXAMINATION

Our experience has shown that the average student reacts more effectively to the world food crisis if he is first exposed to nutritional theory and the reasons behind our current food technology practices. Once the human need for nutrients is described, the historical reasons behind the selection of the crops and animals we produce are weighed against the nutritional significance of the agricultural practice. Description of modern food technology enables the student to understand why we in America are able to preserve foods for use long after harvest and slaughter while people in less developed countries are more dependent upon fresh produce for survival. Presentation of the world food crisis includes the population crisis, the economic reasons for and the nutritional significance of food shortage, the vulnerability of young children to protein malnutrition, and conventional and nonconventional approaches to solving the current problem.

Conventional solutions presented include a discussion of the "green revolution" and the application of technology to food production. In this age of ecology, however, hard questions are asked concerning pollution, energy utilization, and the political implications of agricultural policy decisions such as the recent grain sale to the Soviet Union. When presenting a general survey course, the instructor must be prepared to deal with such issues in a manner that does not destroy his credibility.

Nonconventional solutions discussed include non-agricultural synthesis of nutrient delivery systems or synthetic foods. The current technology involving textured vegetable protein from soybeans and microbially produced single-cell protein are presented as possible alternatives to traditional agriculture. An attempt is made to predict what the world food situation will be in the year 2000 and present what alternatives we in America have to

meet the challenge. The current energy crisis and the politicization of oil reserves by the oil producing nations have raised serious doubts in many student minds as to the role American agriculture should play in feeding the world. Presentation of the pertinent facts to a majority of today's students is necessary since future political decisions will be made by their generation.

Student Enrollment

Enrollment in FS 201 has increased rapidly since 1969, as shown in Table 2.

Table 2 Student Enrollment in FS 201

Year	Students
1969	65
1970	212
1971	645
1972	1,180
1973	1,258
1974	1,278

Enrollment, in fact, was limited by classroom space to 400 per quarter but has recently been raised to 700. Our experience in increasing enrollment is worth relating. At the outset, it took personal contact on the part of the instructor. Students were actually stopped while walking on campus and were asked if they were interested in what they ate. The course content was then explained to them. Although this technique is not 100 percent efficient, enough students enrolled to make it worthwhile. Eventually, the students themselves passed the word and FS 201 became the most popular two-hour elective on our campus. Even though it is designed for freshmen and sophomores, FS 201 today still attracts juniors, seniors, and even graduate students.

Another benefit of FS 201 is the increase in food science majors (Table 3).

Table 3 Food Science Undergraduate Majors

Year	Majors
1969	2
1970	12
1971	22
1972	31
1973	55
1974	79

While FS 201 is certainly not totally responsible for this increased enrollment, many students were first exposed to the discipline by attending the course.

Summary

FS 201, Man's Food, is a general food survey course at the University of Florida. It is designed to make the student aware of food and food-related problems and to interest students in food science as a career. The current interest in the world food crisis presents a similar opportunity to other agricultural colleges. A general survey course dealing with the world food crisis ensures that facts are given, and it may serve to attract nonagriculturally oriented students to careers in agriculture.