

Agriculture Courses during Summer School: Community College Students' Interests and Preferences

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Abstract

Forty-eight students currently enrolled at North Central Texas College were asked about factors influencing their decision to enroll in summer school agriculture courses. Identifying significant factors may help educators improve the scheduling and feasibility of summer school courses for both their institutions and students. This study investigated students' levels of interest in agriculture courses during summer school, preferred subject area(s), and delivery format. The results showed that common factors influencing students' choices to attend summer school have changed very little over the past few decades. This study also found that a large percentage of students who had never enrolled in summer school courses were interested in such courses to satisfy one of three current educational goals: associate's degree, core curriculum basics for university transfer, or technical certificate. Additional analyses revealed that many students who were not interested in agriculture summer courses had never enrolled in any non-agriculture summer school courses. Students indicated animal science and equine science as the most preferred subject areas and Monday through Thursday for five consecutive weeks as the most preferred delivery format. Community college educators and administrators should continue investigating students' preferences for summer school agriculture courses and use the findings from this study to evaluate their current course offerings for summer school.

Introduction

Summer school is included in the academic plans of many students at various institutions, including North Central Texas College. Summer courses are offered in a variety of disciplines and delivery formats to accommodate student and faculty schedules. These courses also create opportunities for additional income for both faculty and institutions. This study focused on the preferences of currently enrolled

agriculture students with regard to possible summer school courses offered at North Central Texas College in the agriculture department. Specifically of interest were students' preferred subject areas, delivery format, and factors which might influence their decisions to enroll. A review of the literature did not reveal previous research on agriculture students' preferences for agriculture courses during summer school among community college students. Sample populations in related studies either represented general student populations enrolled in summer school or students enrolled in business classes during a summer school term.

Wayland et al. (2000) stated that a successful summer school program should offer courses that students want and need and an appropriate schedule of those courses. At North Central Texas College, courses selected by administrators for summer terms historically have been part of the institution's core curriculum. Literature suggests that students choose to attend summer school to graduate on time, complete their degrees more quickly, decrease course loads for regular fall or spring semesters, and/or make up course credits (Chandler and Weller, 1995; Keller, 1982; Patterson et al., 1981). Scott (1995) reported that students who enrolled in summer courses had expectations of less time required and that the academic standards were less rigorous than during the traditional academic year.

Very few community colleges offer agriculture courses during summer school. The purpose of this study was to explore students' preferences and expectations of summer school and factors influencing their decision to enroll in agriculture courses. The specific objectives guiding the study were to:

1. Determine the demographics of currently enrolled participating students;
2. Determine students' levels of interest in enrolling in summer school agriculture courses;
3. Determine common factors influencing students' decisions to enroll in a summer school courses; and,

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4. Determine students' preferences with respect to subject areas and delivery formats for agriculture courses which could be offered during summer semesters.

By identifying the needs, wants, and preferences of agriculture students, institutions should be better positioned to meet those needs.

Materials and Methods

For this study, three instructors from the Department of Agriculture at North Central Texas College were asked to distribute paper questionnaires to students enrolled in their courses. All students enrolled in courses taught by these instructors during the spring 2009 semester were asked to complete the questionnaire. Participation was voluntary and no incentives were offered for participation.

The instrument was a 23-item questionnaire created by the researchers. Cronbach's alpha determined instrument reliability at 0.56. An alpha reliability of 0.7 - 0.8 is a generally acceptable value; however, when studying such diverse constructs combined with a small sample, a .56 alpha reliability can be acceptable (Field, 2005). The instrument contained three sections: student demographics, factors affecting the decision to enroll in summer school, and students' preferences for subject area and delivery format. Multiple choice questions were used when inquiring about students' demographics. Students were asked simple yes/no questions about whether they had ever enrolled in and completed summer school courses and whether they would consider enrolling in agriculture courses offered during summer term. Likert-type rating scales were used for the factors influencing decisions to enroll and subject/format preferences.

Descriptive statistics were conducted to describe demographics. Frequencies, measures of central tendency and variability were used to interpret the data.

Results and Discussion

The first objective was to determine the selected demographics for the students in the sample. Demographic data for the sample is summarized in Table 1. The sample included 41 females (85.4%) and seven males. Eighty-three percent of the respondents were between the ages of 18-23. Students were also asked to indicate which of three options (Associate's degree, core curriculum planning for university transfer, or technical certificate) best described their current educational goal. More than one-half (58.3%) of the respondents indicated that their current educational goal was to obtain an Associate's degree, followed by 25% who indicated their current educational goal was to complete basic core curriculum courses in preparation for university transfer. Participants were asked to indicate their current classification at the time of the study. Students in the

sample were divided almost equally between freshmen and sophomores at 41.7% and 50%, respectively.

The second objective sought to measure students' levels of interest in summer school agriculture courses. Twenty-seven (56.2%) of the participants indicated they would be interested in enrolling in an agriculture course if offered during summer school (Table 2). Fifteen of the 48 participants had previously enrolled in a non-agriculture course during a summer school session; 10 of these students (66.7%) indicated that they would consider enrolling in agriculture summer courses if offered. Sixty-three percent (n=17) of students who indicated interest in an agriculture summer school course had never enrolled in any summer courses. Of the 21 students not interested in an agriculture course during the summer, only five had previously enrolled in a summer course.

The decision to enroll in agriculture courses taught during summer school was greatly influenced by the students' current program of study (Table 3). Fifty-nine percent of those interested in taking such a course were pursuing an Associate's degree.

Table 1. Summary of Demographic Characteristics

Characteristic	<i>f</i>	%
Gender		
Female	41	85.4
Male	7	14.6
Age Groups		
18 - 20	26	54.1
21 - 23	14	29.2
24 +	8	16.7
Educational Goal		
Associates Degree	28	58.3
Core Curriculum - Planning to Transfer	12	25.0
Technical Certificate	8	16.7
Classification		
Freshmen	20	41.7
Sophomore	24	50.0
Other	4	8.3

Objective three explored factors influencing students' decisions to enroll in summer school. Students were asked to respond using a three-point Likert-type scale about their reasons for enrolling in summer school. From these responses (Table 4), it was found that students ranked acquiring a head start on their university degree as the most influencing factor (M=2.8, SD=.9) in their decision to enroll in summer school. Students also indicated that completing their current degrees in shorter time (M=2.7, SD=.7) and reducing course load during the regular semesters (M=2.4, SD=.8) were influential in their decisions to attend summer school. This data agrees with the findings of Keller (1982), Chandler

Table 2. Student Interest in Agriculture Course Offerings During Summer School

Interested in enrolling in an Agriculture course if offered during the summer	<i>f</i>	%
YES	27	56.2
Previously enrolled in non-agriculture summer course	10	37.0
Not previously enrolled in non-agriculture summer course	17	63.0
NO	21	43.8
Previously enrolled in non-agriculture summer course	5	23.8
Not previously enrolled in non-agriculture summer course	16	76.2

Table 3. Decision to Enroll in Summer Courses by Current Program of Study

Student characteristic	Total	Associates Degree		Core Curriculum and Planning to Transfer		Technical Certificate	
		<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Interested in agriculture course(s) during the summer	27	16	59.3	8	29.6	3	11.1
Previously enrolled in non-agriculture course(s) during the summer	15	12	80.0	3	20.0	0	0.0

and Weller (1995), and Patterson et al. (1981). Students were asked if they perceived summer school classes as being academically easier than the same course during regular semesters. Students reported that the perception of summer school as being easier was influential ($M=2.0$, $SD= 1.0$) in their decision to enroll. Scott (1995) also found that

students perceived summer school as being academically less rigorous and that perception influenced their decisions to enroll in summer school.

The fourth objective was to determine the preferred subject area and delivery format for possible summer school agriculture course offerings from those who were interested in agriculture summer school courses. Participants were provided with seven possible subject areas and were asked to rank their choices using a four point Likert-type scale. The options were: animal science, equine science, marketing of agricultural products, introduction to agriculture economics, introduction to agronomy, plant protection and horticulture. The results (Table 5) showed animal science as the most preferred ($M=3.04$, $SD=1.0$) subject, followed by equine science ($M=2.6$, $SD=1.3$), marketing of agricultural products ($M=2.4$, $SD=.9$), and introduction to agriculture economics ($M=2.4$, $SD=.9$). Participants indicated low levels of interest in agronomy, plant protection, and horticulture.

Students were provided with three common summer school delivery formats and were asked to rank their preferences using a four point Likert-type scale (Table 6). The options for delivery were: Monday through Friday for four consecutive weeks, Monday through Thursday for five consecutive weeks, and two days a week for eight consecutive weeks. Students preferred Monday through Thursday for five consecutive weeks ($M=2.4$, $SD=.9$). The least preferred format was two days per week for eight consecutive weeks ($M=2.04$, $SD=1.1$).

Table 4. Factors Influencing Students Decision to Enroll in Summer School

Ranked item	Mean ^A	SD
Plan to attend a university and a summer class will provide me with a head start on my degree	2.8	0.9
To complete degree in a shorter period of time	2.7	0.7
To reduce course load during the regular Fall and Spring semesters	2.4	0.8
Perceive summer courses as being academically easier than Fall or Spring semester courses	2.0	1.0

^A - Scale: one – not influential, two – influential, three – very influential.

Table 5. Student Preference Among Specific Subject Areas

Ranked item	Mean ^A	SD
Animal Science	3.0	1.0
Equine Science	2.6	1.3
Marketing of Agriculture Products	2.4	0.9
Introduction to Agriculture Economics	2.4	0.9
Introduction to Agronomy	1.9	1.0
Plant Protection	1.6	0.9
Horticulture	1.4	0.7

^A - Scale: one – not interested, two – may be interested, three – interested, four = very interested.

Summary

The findings from this study showed that a majority of agriculture students at North Central Texas College were interested in agriculture summer courses; the highest level of interest was in animal science courses. This student interest study may yield positive results for each of the parties involved. Departmental benefits may include: 1) increasing student contact hours without increasing the number of faculty, and 2) alleviating scheduling conflicts among departmental courses during regular semesters. Animal science faculty may benefit from being able to offer summer science courses when climatic

Table 6. Student Preference of Available Summer Term Formats

Ranked item	Mean ^A	SD
Monday through Thursday for 5 consecutive weeks	2.4	.9
Monday through Friday for 4 consecutive weeks	2.4	1.1
Two days per week for 8 consecutive weeks	2.0	1.1

^A - Scale: one – not interested, two – may be interested, three – interested, four = very interested.

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conditions may be better suited for field labs. Also, it may be easier for faculty to schedule daylong learning activities requiring travel during summer versus regular semesters. Students may benefit the most from agriculture summer courses. Their benefits may include: 1) reduced student:teacher ratios, 2) completing degree requirements during summer could allow students to complete their degrees in less time and/or enroll in lighter course loads during regular semesters without extending time to graduation, and 3) less scheduling conflicts with other courses during summer semesters could increase the frequency in which students participate in off-campus experiential learning opportunities. Additional studies are needed after summer agriculture courses are offered to investigate if students, faculty, or departments conceptually realized any benefits from the agricultural summer course offerings.

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