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THE HISTORY OF THE INDUSTRIAL ARTS DEPARTMENT  
OF NORTH TEXAS STATE UNIVERSITY  
FROM 1955 TO 1975

THESIS

Presented to the Graduate Council of the  
North Texas State University in Partial  
Fulfillment of the Requirements

For the Degree of

MASTER OF SCIENCE

By

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This history is designed to study the Industrial Arts Department at North Texas State University. The study is broken down into the areas of enrollment trends, the faculty, the curriculum, and the physical facilities.

This study found that the Industrial Arts Department's class card enrollment remained relatively stable from 1955 to 1975. There was little fluctuation in semester credit hours in the Industrial Arts Department from 1955 to 1975. This study also found that the curriculum of the department is designed mainly for undergraduate students. The number of female students is increasing in the department and the number of degrees awarded by the Industrial Arts Department is declining.

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## CHAPTER I

### INTRODUCTION

The Industrial Arts Department at North Texas State University is a growing and changing department that strives to keep up with the rapidly changing needs of education in our society. As the Industrial Arts Department changes, it studies where it has been as well as where it is going. This study hopes to give an insight into the history of the department between the school years 1955-56 and 1974-75.

#### Statement of the Problem

This study was designed to examine the Industrial Arts Department at North Texas State University during the time period between the 1955-56 school year and the 1974-75 school year. The study was broken down into the four areas of enrollment trends, faculty, curriculum and physical facilities.

#### Limitations of the Study

This study was limited to the Industrial Arts Department at North Texas State University. It was concerned only with the years from the 1955-56 school year to the 1974-75 school year. The study was further limited to student enrollment, the faculty, the curriculum, and the physical facilities.

### Source of Data

Data for this study were collected from the following sources: Bulletins of North Texas State University, interviews with department members, available materials from official records of North Texas State University, department records on file in the Industrial Arts Department, and a study by Roy L. Varley (2).

Two main sources were used to obtain data for the chapter on enrollment trends. One was the "Fact Book," 1976 edition, showing semester credit hour enrollment in the Industrial Arts Department published by North Texas State University (1). This source covered the years 1956-57 to 1974-75, and showed the undergraduate and graduate credit hour enrollment for each of four separate semesters, fall, spring, first summer session, and second summer session. The "Fact Book" also was used to obtain data on the number of majors in the Industrial Arts Department from 1961 to 1975. The data concerning the number of degrees awarded by the Industrial Arts Department from 1957 to 1975 were also collected from the 1976 edition of the "Fact Book." The second major source of data for the chapter on enrollment trends was the department records of the Industrial Arts Department. These records consisted of either the final grade sheets used during the earlier years included or the study of the twelfth day class rolls, which were used for the later years of the study. The twelfth day class rolls that were on file,

although very accurate and complete, only covered the years 1959-60 through 1974-75. That left a four year span from 1955 to 1959 which was included in this study but for which no enrollment data could be obtained. Therefore, both of these sources were used in the study to try and discover what, if any, trends existed during the time between the 1955-56 and the 1974-75 school years.

To obtain the data for each school year needed for the study, each school year's records were studied and the needed data recorded. The number of class cards for each course, the number of class cards for male and female students, and the name of the instructor for each course were obtained in this manner.

#### Treatment of Data

Data collected from the available sources were assembled and presented in a manner that showed changes in all areas of the study on a yearly basis. Tables and figures were utilized to compare the enrollment of students during the various years.

#### Organization of the Study

Chapter I of the study includes an introduction, statement of the problem, limitations of the study, source of data, treatment of data, organization of the study, definition of terms, and related studies.

Chapter II deals with the enrollment trends in the Industrial Arts Department from the 1955-56 school year to the



1974-75 school year. The number of male and female students' class cards and the fluctuations in enrollment are presented on a year to year basis.

Chapter III presents the data on the Industrial Arts faculty during the twenty years covered by the study.

Chapter IV compares the curriculum of the Industrial Arts Department during the different years of the study. The changes in course content and the additions and deletions of various courses are presented.

Chapter V deals with the physical facilities that the Department of Industrial Arts occupied between the 1955-56 and 1974-75 school years.

Chapter VI consists of a summary, findings, conclusions, and recommendations.

#### Definition of Terms

The following terms were used in this study.

Final Grade Sheets--A listing of all the students in a course with their final grades for that course.

Graduate Students--Students who are doing course work after obtaining a bachelor's degree.

Industrial Arts Majors--Students who officially listed Industrial Arts as their major field of study.

School Year--A school year included a fall, spring, first summer semester, and the second summer semester. The 1959-60 school year consisted of the fall semester, beginning in September 1959, the spring semester, beginning in January

1960, and the two summer semesters, beginning in June and ending in August, 1960.

Semester Hours Generated--The total number of semester credit hours taken by students in the Industrial Arts Department in a particular semester.

Student Class Cards--The twelfth day class roll records the name of each student enrolled in a course. These names are transferred to class cards. The total number of class cards during a semester is usually larger than the actual number of students enrolled, because most students enroll for more than one course in Industrial Arts.

Twelfth Day Class Roll--The official North Texas State University class roll of students enrolled in courses on the twelfth day of each semester.

Undergraduate Students--Students who have not completed the requirements for a bachelor's degree.

#### Related Studies

In 1956 Varley made a study dealing with the Industrial Arts Department at North Texas State College from 1911 to 1955. The purpose of the study was to show the changes at North Texas State College in the manual arts field, which later evolved into the Industrial Arts Department.

The Thirty-first Legislature of Texas in 1901 passed two bills enabling all state normal colleges to teach manual training. The bills provided financing for equipment, facilities, and instructors. Under the provisions of the bills

C. A. Tripp was brought to Denton, Texas, from Council Bluffs, Iowa, as the first instructor of manual training (2, p. 13). Under the supervision of Tripp, the first manual training program was started at North Texas Normal College in the fall of 1910. Classes were held in the basement of the Chemistry Building. The manual training curriculum consisted only of drawing and woodwork. During Tripp's first summer at the college, William Joseph McConnell, later President of North Texas State College, was one of Tripp's pupils in a drawing class. The manual training classes used all the rooms except one in the chemistry building's basement, and Tripp was the only instructor.

In 1912 there were five distinct courses of study in manual training at North Texas Normal College. In 1913 there were nine different courses offered in the Manual Training Department. A course in the methods of teaching manual training was offered for the first time in 1913 (2, p. 17).

A new building was finished in 1915 and named the Manual Arts Building. The manual arts curriculum was expanded to thirteen courses, with the areas of drawing and wood having the most courses. In 1916 a course in blacksmithing was added to the curriculum (2, p. 18).

The curriculum continued to grow steadily and by 1921 the Manual Training Department had more than thirty courses. In 1922 some courses were dropped and others were modified

so that only nineteen courses were in the curriculum. S. A. Blackburn had joined the staff in 1917 and was a major influence in many of the later changes in the Manual Arts Department (2, p. 18).

In 1923 the Thirty-eighth Legislature of Texas changed the name of North Texas Normal College to North Texas State Teachers College. The college name remained the same until 1949 when the Fifty-first Legislature of Texas changed the name to North Texas State College (2, p. 31). In 1923 the Manual Arts Department had an enrollment of 116 class cards (2, p. 19). This was close to the initial enrollment in 1911 of 102 class cards. The wood and metal courses were moved to the new Power Plant Building at this time. The printing and drafting classes were still held in the Manual Arts Building.

In 1925 the name of the Manual Training Department was changed to the Industrial Arts Department (2, p. 20). Blacksmithing and foundry were dropped in 1926 and three courses were added in 1927.

By 1933 there were seventeen different courses offered in the Industrial Arts Department (2, pp. 22-23). The enrollment that year was 108 class cards and three instructors.

By 1940 the enrollment increased to 439 class cards which was an all time high for the department up to that date (2, p. 40). There were more than thirty-five courses being

offered and the instructors numbered five with Blackburn serving as head of the department.

In the 1944-1946 college bulletin for the Industrial Arts Department there were thirty-eight courses listed. The enrollment of the department was 851 class cards (2, p. 41). There were eight instructors in the department at this time.

In 1949 the Industrial Arts Department began using the vacated post office building for its offices and one classroom. The printing classes were also moved from the basement of the Manual Arts Building to the new Journalism Building at this time. The classes in woodworking were held in the Power Plant. A separate metal building was used for the metal work classes, and an army barracks housed industrial arts offices and drafting classes.

In 1950 the enrollment in the Industrial Arts Department reached a high of 1300 class cards and thirteen instructors (2, p. 41). By 1954 the enrollment had dropped to 795 class cards and eleven instructors (2, p. 41). In the 1954-55 school year, the last of Varley's study, the student class card enrollment in the Industrial Arts Department was 901 with eleven instructors and seven buildings (2, p. 42).

## CHAPTER BIBLIOGRAPHY

1. Rogers, James L., "Fact Book," unpublished collection of data, Office of University Planning and Analysis, North Texas State University, Denton, Texas, 1976.
2. Varley, Roy Lavergne, "The History of the Industrial Arts Department of North Texas State College from 1911-1955," unpublished master's thesis, School of Education, North Texas State University, Denton, Texas, 1956.

## CHAPTER II

### ENROLLMENT TRENDS

This chapter deals with enrollment trends in the Industrial Arts Department at North Texas State University from 1955-1975. In the 1954-55 school year, the last year of Varley's study on the enrollment at North Texas State College, as the University was called at that time, the number of class cards in the Industrial Arts Department was 901 (4, p. 42). The data used in the study of the years between 1955 and 1975 were gathered from the twelfth day class rolls of the Industrial Arts Department. Since twelfth day class rolls were only available for the years from 1959-60 to 1974-75, a direct comparison cannot be made between Varley's figure of 901 class cards in 1954-55 and the actual number of class cards in the Industrial Arts Department in 1955-56, the first year of this study.

There were 1949 class cards in Industrial Arts during the 1959-60 school year (3). That was a 46.2 per cent increase during the four years from 1955-56 to 1959-60. The 1949 class cards included class cards for both summer sessions and the fall and spring semesters. It included both graduate and undergraduate class cards. From this total of 1949 class cards, the enrollment gradually

increased for six consecutive years (3). In 1965-66 the number of class cards reached 2873, which was the largest number of class cards up to that time (3). Figure 1 shows these trends graphically. Table II in the Appendix gives the exact figures that are shown graphically in Figure 1. As shown in Figure 1, there was a slight decrease in enrollment during the 1966-67 school year, but the 1967-68 school year had a class card total of 2907, a total that was not again attained in any of the years covered in the study (3). From 1968-69 to 1974-75 the enrollment fluctuated from 2791 class cards in 1968-69 to 2852 class cards in 1974-75, the last year included in the study (3).

The sharpest decrease in enrollment was from the 1968-69 school year to the 1969-70 school year, which had a total decrease of 309 class cards (3). The sharpest increase in class card enrollment was between the 1973-74 and 1974-75 school years which had an increase of 293 class cards (3). Those years had the largest enrollment fluctuations for the years covered by the study.

The second course of data used in the study was the record of semester credit hours in the Industrial Arts Department from 1955-56 to 1974-75, taken from the "Fact Book," 1976 edition (1, p. 2.4-15). This source of data gave the total semester hours scheduled by students, both graduate and undergraduate in the Industrial Arts Department during each semester and also each summer session. The



Number of  
Class Cards

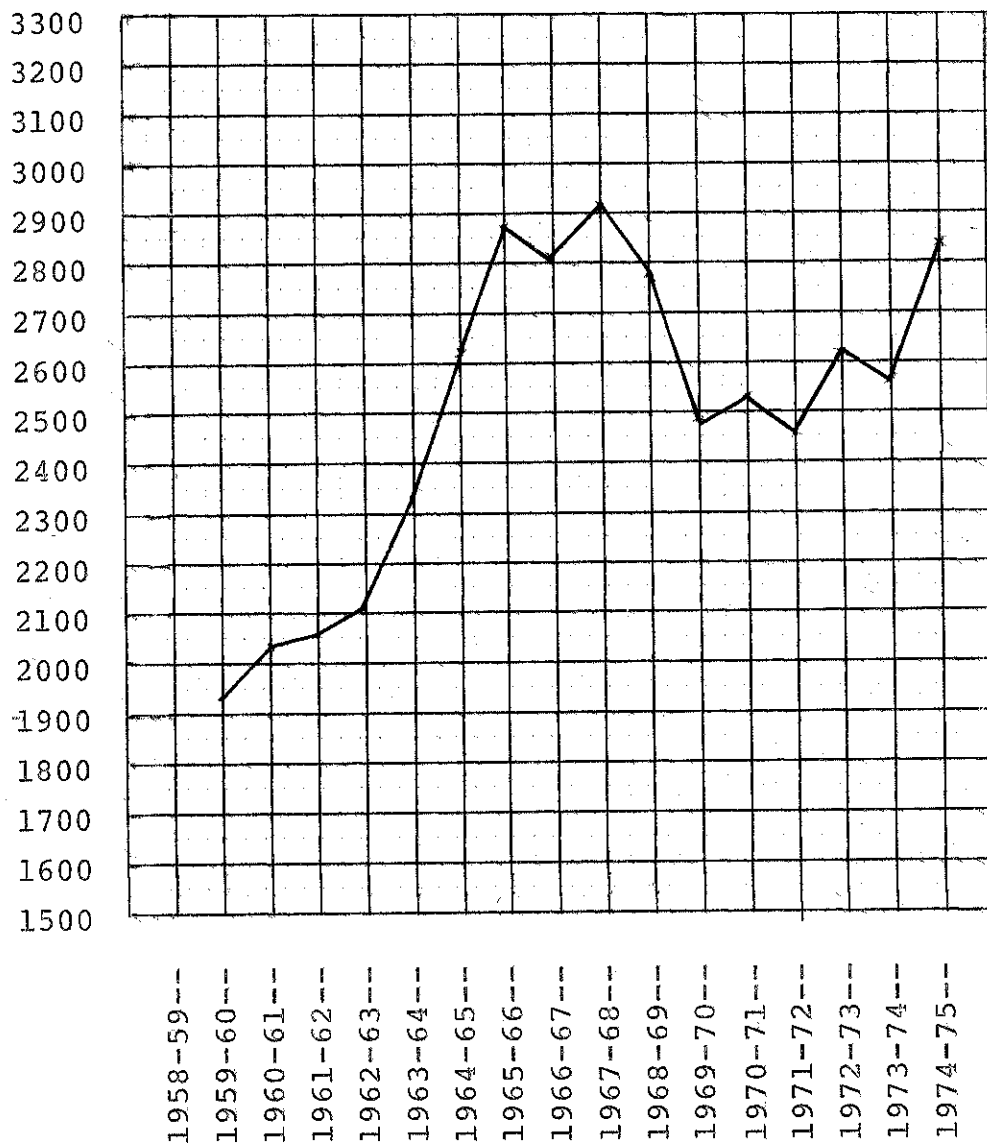


Fig. 1--The number of class cards in the Industrial Arts Department from the 1959-60 school year to the 1974-75 school year (3).

disadvantage of using these data was that there was no way to determine accurately the number of students enrolled for the courses. Many students enroll for more than one course in industrial arts each semester, so there was no way to accurately determine the number of students enrolled. Therefore, a parallel has been made between the two sources of data to try and discover any trends that occurred.

During the 1956-57 school year, the first year in which data dealing with semester hours in the Industrial Arts Department were available, the total number of semester hours generated was 6351 (1, p. 2.4-15). This was a total of graduate and undergraduate semester hours. In the 1957-58 school year the total was almost identical to the 1956-57 figure with 6354 semester hours. In the 1958-59 school year, the number of semester hours generated dropped to 5553, the lowest number of hours generated during the time covered by the study. Figure 2 shows the trend and Table III in the Appendix gives the exact data shown in Figure 2.

As Figure 2 indicates, after the low in 1958-59, the total number of semester hours generated began to gradually increase. The 1959-60 school year had a total of 5763 semester hours, but the total semester hours generated during the 1960-61 school year only totaled 5747, a slight decrease from the previous year. Beginning with the 1961-62 school year, a steady increase in semester hours generated was recorded for six consecutive years, ending in 1967-68 when

Semester Credit Hours  
 Summer, Fall, Spring,  
 Graduate and Under-graduate  
 Graduate

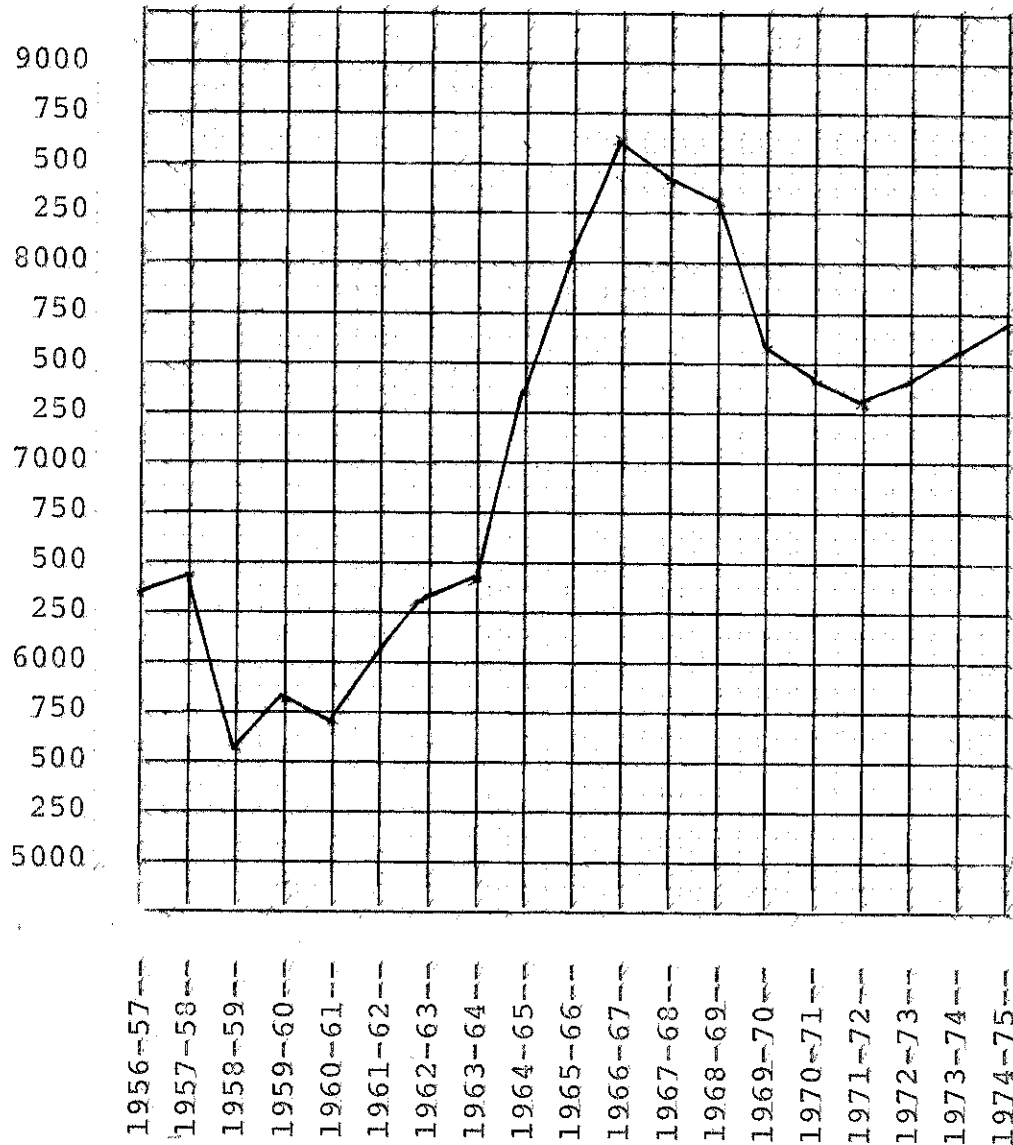


Fig. 2--Semester credit hours generated in the Industrial Arts Department from the 1956-57 school year to the 1974-75 school year (1, p. 2.4-15).

8443 semester hours were recorded, down from the 1966-67 total of 8606 (1, p. 2.4-15). The school year 1966-67 had a semester hour total of 8606, the highest number of semester hours that was recorded for any of the years in the study. From the 1967-68 school year to the 1971-72 school year, a steady decrease in total semester hours was recorded. From the 1972-73 total of 7415 semester hours, the total hours increased every year through 1974-75, the last school year covered by the study, when the semester hours totaled 7720 (1, p. 2.4-15).

A comparison of the two sets of data, the first being the class card count and the second being the semester credit hour enrollment, showed parallel tendencies. In a comparison of the data in Figure 1 and Figure 2, a similar trend is obvious. Both figures shown an increase starting in 1963-64. However, Figure 1, showing the number of class cards for each school year, reached its peak in 1967-68 with a total of 2907 (3). Figure 2, showing the semester hour enrollment, peaked during the 1966-67 school year with a total of 8606 semester credit hours (1, p. 2.4-15).

The "Fact Book," 1976 edition, gives a breakdown of degrees, both bachelor's and master's for the Industrial Arts Department from 1957 through 1975. The lowest total number of degrees awarded during the time covered in this study was 1957, when a total of forty-eight degrees was conferred (1, p. 3.2-10). Of these four were master's and

forty-four bachelor's. The number of degrees fluctuated throughout the years of the study, but 1971 had the highest total number of degrees awarded with 109. There were ninety-seven bachelor's and twelve master's degrees earned during 1971. During the school years of 1968 and 1972 a total of over 100 degrees were awarded. Figure 3 and Table IV in the Appendix give a breakdown of the exact number of degrees awarded during each year, both bachelor's and master's. The last year of the study, 1975, had a total of seventy-two degrees awarded. Sixty-four of these were bachelor's and eight were master's. The lowest number of bachelor's degrees conferred during the years when data were available was in 1960, when thirty-eight undergraduate degrees were awarded (1, p. 3.2-10). The next lowest number of bachelor's degrees awarded was forty-three, given both in 1961 and 1963. The largest number of bachelor's degrees awarded was during 1971, when ninety-seven degrees were earned. The last year of the study, 1975, had a total of sixty-four bachelor's degrees awarded. The lowest total of master's degrees awarded during the years covered in the study was four, given in 1957, 1958, and 1967. There were five master's degrees conferred in 1966. In 1972 the total number of master's awarded was fifteen, the largest number of master's degrees earned during the study. There were twelve master's earned in 1971 and eleven in 1969 and 1970. The last year of the study, 1975, had eight master's degrees awarded (1, p. 3.2-10).

Number of Degrees  
Awarded

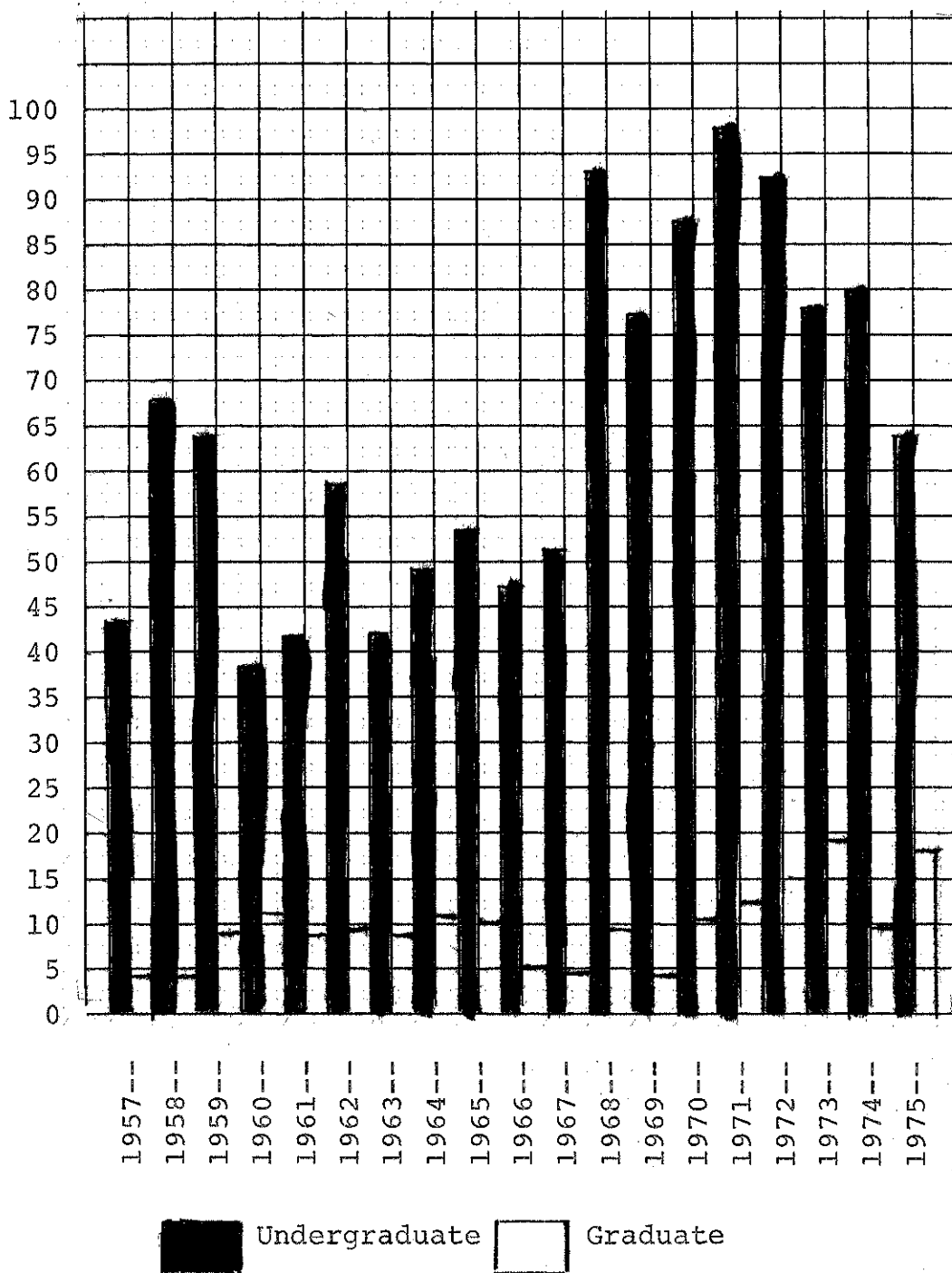


Fig. 3--Degrees awarded by the Industrial Arts Department from 1957-1975 (1, p. 3.2-10).

The "Fact Book," 1976 edition, also gave a breakdown of enrollment by majors for the years 1961 through 1975 (1, p. 1.10-5). The "Fact Book" broke the data down into graduate and undergraduate majors. The total figure for the fall semester of each year is used for this study. There was a total of 230 industrial arts majors in 1961, the first year that data were available. The "Fact Book" listed an increase in industrial arts majors for six consecutive years ending with the 1968 total of 429, the largest number of industrial arts majors during the time covered by the study. Figure 4 gives a graphic illustration of industrial arts majors and Table V, in the Appendix, gives the exact data.

The Industrial Arts Department had a much larger percentage of class cards representing male students than female students during the time covered by the study (3). In the 1959-60 school year there were 308 class cards issued to female students compared to 1530 class cards issued to male students, or 16.75 per cent of the industrial arts enrollment were female students (3). The school year with the highest class card total representing female students was 1974-75, the last year covered by the study. That year there were 558 class cards issued to female students (3). The 558 total of female students' class cards equals 19.57 per cent of the total number of class cards for the 1974-75 school year. From the 1967-68 school year to the 1974-75 school year, there was a steady increase in the number of class cards

Number of  
Majors

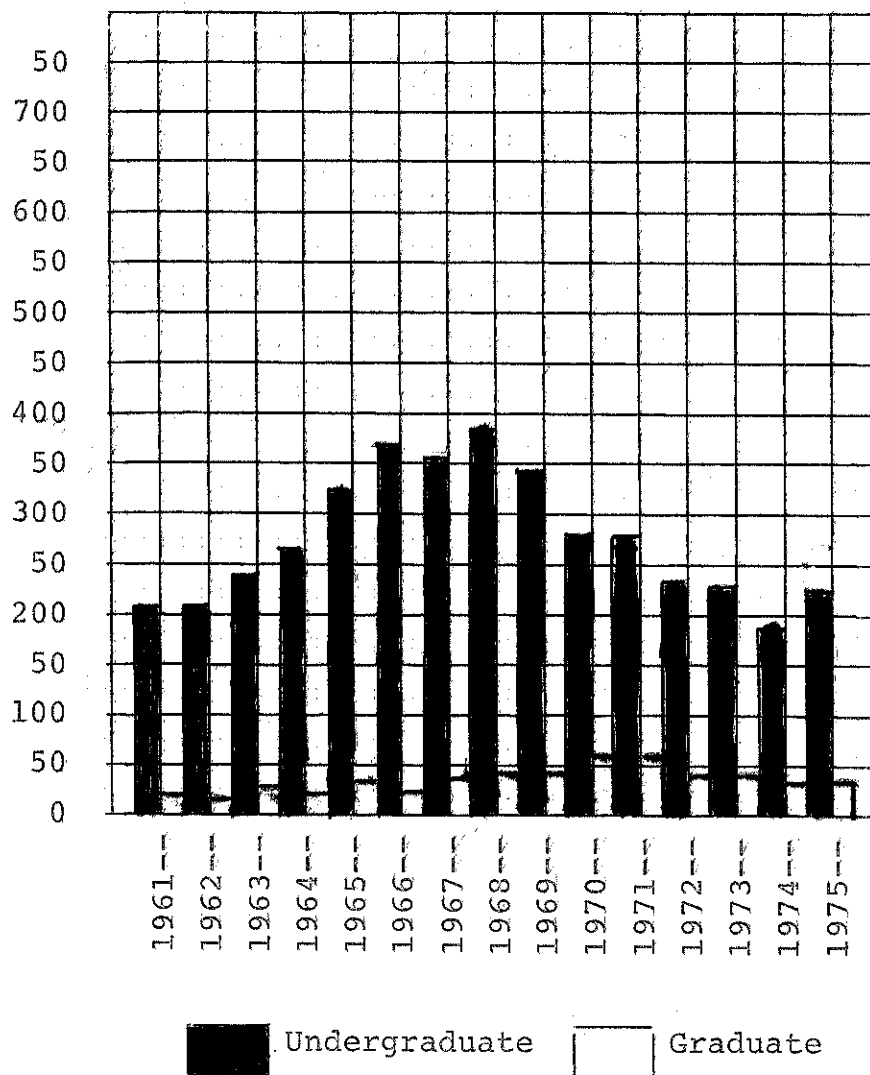


Fig. 4--Number of industrial arts majors from 1961-1975 (2, 3).



issued to female students enrolled in the Industrial Arts Department (3). Figure 5 and Table VI in the Appendix show the trend in male and female enrollment by class cards. As shown in Figure 5, the 1965-66 school year had the lowest total number and percentage of class cards representing female students of any year covered by the study (3). That year there were 117 class cards of female students which constituted 4.07 per cent of the total class cards of the Industrial Arts Department. From the total of 177 during the 1967-68 school year, the number of class cards issued to female students increased every year through the 1974-75 school year. The percentage of class cards of female students to the total number of class cards also increased yearly from the 1967-68 school year until the last year covered in the study, 1974-75.

It is interesting to note that from the 1962-63 school year to the 1965-66 school year the number of class cards issued to female students steadily decreased while the number of class cards issued to male students steadily increased (3). This made for a smaller percentage of female students' class cards to male students' class cards. From the 1967-68 school year to the 1974-75 school year, the female students' class card total steadily increased, while the male students' class card total decreased (3). This caused the percentage of female students' class cards to show an increase.

Percentage

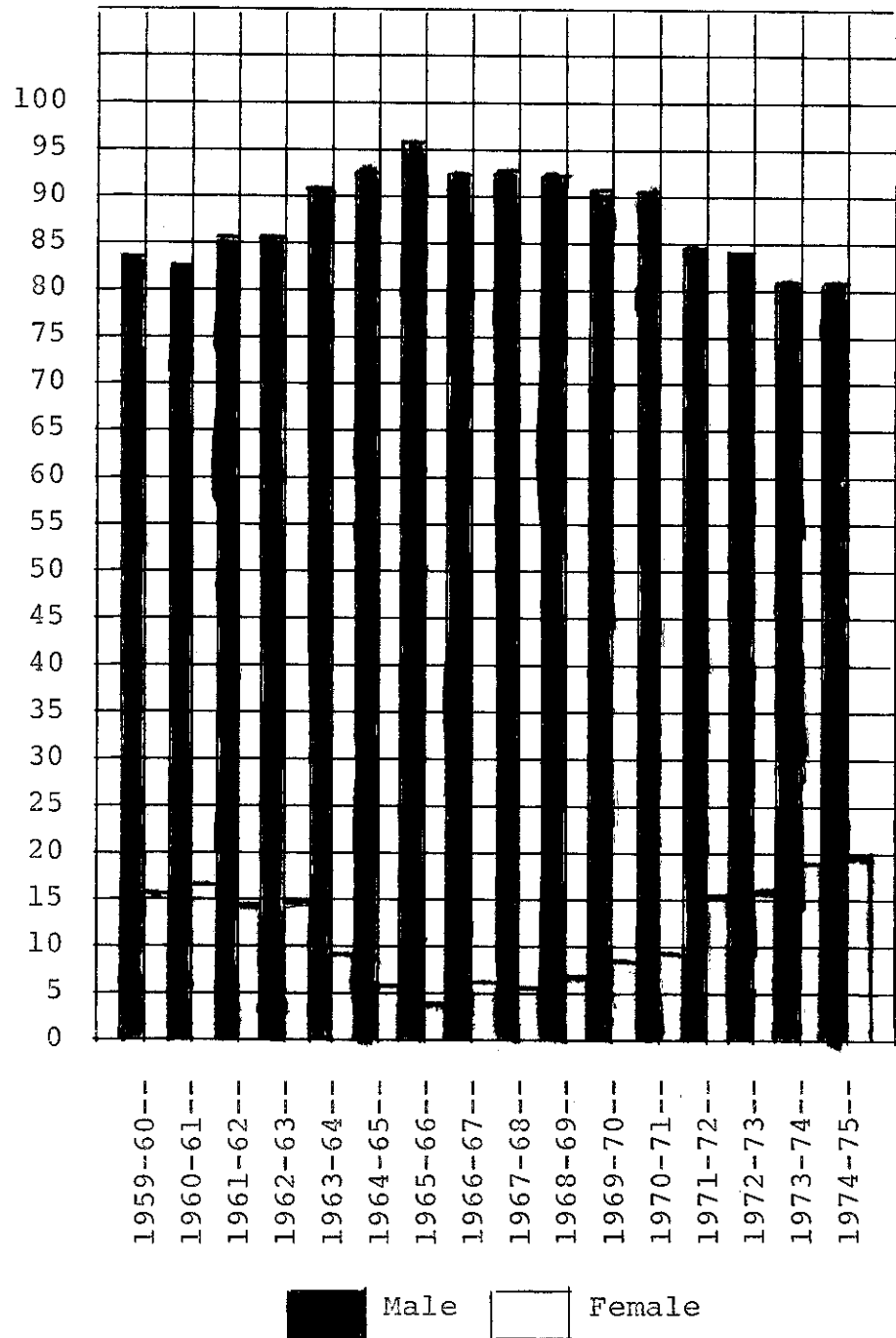


Fig. 5--Percentage of class cards of male and female students in the Industrial Arts Department from the 1959-60 to 1974-75 school years (3).

The 1973-74 total of 478, or 18.69 per cent, female students' class cards probably reflected the increased number of interior design majors that took industrial arts courses. Students in the interior design program had to take a total of eighteen semester hours of industrial arts courses.

From the 1967-68 school year through the 1974-75 school year, when the number of class cards issued to female students was steadily increasing, the most popular courses for female students were those which would be beneficial to interior design majors (3). The courses that were offered to elementary education majors, of which most are female, were also popular (3). A following chapter will deal with curriculum during the 1955-56 to 1974-75 time period, but a brief description of the courses that were the most popular with female students during the study period is presented below.

During the period from the 1967-68 school year to the 1974-75 school year, the majority of female students enrolled in industrial arts courses were taking Industrial Arts 128 and 228 (3). These two courses were Engineer Drawing and Technical Drafting. Industrial Arts 106, Graphic Arts; Industrial Arts 230, Architectural Drawing; Industrial Arts 335, Advanced Architectural Drawing; Industrial Arts 416, Upholstery and Wood Finishing; Industrial Arts 244, General Benchwork; and Industrial Arts 200,

Industrial Arts for Elementary School were also popular with female students during the 1967-68 to 1974-75 school years (3).

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### CHAPTER III

#### INDUSTRIAL ARTS FACULTY

The faculty of the Industrial Arts Department at North Texas State University changed from year to year between 1955 and 1975. In 1955, the first year included in the study, there were twelve men on the faculty of the Industrial Arts Department (2). There were two full professors on the faculty in 1955, S. A. Blackburn and E. B. Blanton. C. C. Davis was the only associate professor at that time. There were five assistant professors although two, H. E. Money and A. F. Nelson were on leave of absence at the time. The other three assistant professors were J. D. Hall, J. C. McCain, and L. E. Sorrels. There were four instructors in 1955-56; D. W. Duncan, W. R. Erwin, P. N. McLeod, and F. R. Roberson (2). Blackburn, who had served as professor/director of the Industrial Arts Department, retired in 1955 (1).

In 1956-57 Blanton served as professor/director of the Industrial Arts Department. Davis was the associate professor and there were six assistant professors during that time. Nelson had returned from leave of absence but Money was still on leave. E. G. Bednar joined the faculty as an assistant professor that year. The instructors on the faculty were the same as the preceding year. A total of thirteen members made up the faculty in 1966-67 (3).

In 1957-58 there were twelve members on the industrial arts faculty listed in the catalog (4). Usually each year there were one or two graduate students who took classes in the department and taught courses offered by the department. Since these graduate teaching fellows were not listed in the North Texas State University catalog, they are not included in the study as part of the faculty. Blanton was professor and director of the department in 1957-58 and several changes were occurring. C. A. Buntten and J. H. Mahoney were added to the faculty as assistant professors. Bednar and Erwin both left the faculty to accept teaching positions elsewhere (1).

In 1958-59 there were the same twelve members of the faculty as in the previous year. Along with Davis, who was an associate professor, Buntten, Mahoney, Money, and Nelson were promoted to associate professorships. Hall, McCain, and Sorrels were assistant professors, and Duncan, McLeod, and Roberson were instructors (5).

In 1959-60 the faculty remained the same but 1960-61 produced some changes in the faculty. Buntten left the faculty to accept another teaching post and Duncan was on leave of absence (1). B. R. Zachry joined the faculty as an instructor and McCain was promoted to associate professor. Money was deceased in 1961 (17).

In 1961-62 Hall was transferred to full time duties at the print shop in the Journalism Building and was no longer listed on the industrial arts faculty (1). McLeod was promoted

to assistant professor in 1961-62, and there were ten members on the faculty that year (6).

In 1962-63 M. C. Williamson joined the faculty as an associate professor to become the eleventh member of the faculty (7, 17). The 1963-64 school year remained the same as the preceeding school year but the 1964-65, 1965-66, and 1966-67 school years produced several changes in the Industrial Arts Department. In 1964-65 Nelson and Mahoney were promoted to the rank of professor and joined Blanton as professors on the faculty (8, 17). McLeod was made associate professor and J. Thornton joined the staff as an assistant professor. R. W. Thornton replaced Zachry on the faculty as an instructor when Zachry left the faculty for employment in the printing industry (1). There were no additions to the faculty in 1965-66 (9). In 1966-67 two members were added to the department's faculty. J. V. Richards joined as an assistant professor. These two additions brought the faculty membership up to fourteen, the largest number of faculty members up to that time. McCain was promoted to make a total of four faculty members at that position (10).

In 1967-68 McLeod was promoted to professor. J. Thornton resigned from the faculty and R. B. Trapp joined the staff as instructor.

In 1968-69 C. B. Ingraham joined the faculty as an instructor and Williamson was promoted to full professor (17).



T. R. Koonce was added as an assistant professor in 1969-70 to bring the number of men on the faculty up to sixteen (11).

In 1970-71 there were seventeen members on the industrial arts faculty, although R. Thornton was on leave of absence from the university. C. W. Becker joined the faculty as assistant professor and A. F. Wied joined as an instructor for one year while R. W. Thornton was on leave (15). Roberson left the faculty to become assistant to the resident engineer of North Texas State University and Richards was promoted to assistant professor in 1970-71 (12).

In 1971-72 two promotions to assistant professor were made. Duncan and Thornton were promoted to assistant professors and Brenholtz was promoted to associate professor. Wied left the faculty that year when R. W. Thornton returned from his leave of absence. The teaching faculty totaled sixteen members (13).

The only change in 1972-73 was that Davis was no longer on the faculty. He retired from teaching in 1972 after thirty-two years of association with the Industrial Arts Department (15).

The last year of the study, 1974-75, produced no changes at all in the faculty. There were six full professors: Blanton, who was professor and director of the department; Mahoney; McCain; McLeod; Nelson; and Williamson (16). Brenholtz and Richards were the two associate professors. Becker, Duncan, Koonce, Sorrels, and Thornton were the

five assistant professors. The two instructors were Ingraham and Trapp (14).

Table I lists the instructors who served on the industrial arts faculty during the years of the study and gives the highest degree each held while teaching in the department. Table I also gives the years each instructor was listed on the faculty.

TABLE I  
INDUSTRIAL ARTS INSTRUCTORS BETWEEN 1955-1975

Instructors	Years on Staff	Education		
		B.S.	M.S./M.Ed.	Ph.D/Ed.D.
Becker	1970-1975	X	X	X
Bednar	1956-1957	X	X	X
Blackburn	1955	X	X	X
Blanton	1955-1975	X	X	X
Brenholtz	1966-1975	X	X	X
Bunten	1957-1960	X	X	X
Davis	1955-1972	X	X	
Duncan	1955-1975	X	X	
Erwin	1955-1957	X	X	
Hall	1955-1961	X	X	
Ingraham	1968-1975	X	X	
Koonce	1969-1975	X	X	X
Mahoney	1957-1975	X	X	X
McCain	1955-1975	X	X	X
McLeod	1955-1975	X	X	X
Money	1955-1961	X	X	X
Nelson	1955-1975	X	X	X
Richards	1966-1975	X	X	X
Roberson	1955-1970	X	X	
Sorrels	1955-1975	X	X	
Thornton J.	1964-1967	X	X	
Thornton R.	1964-1975	X	X	X
Trapp	1967-1975	X	X	
Wied	1970-1971	X	X	
Williamson	1962-1975	X	X	X
Zachry	1960-1964	X	X	

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## CHAPTER IV

### CURRICULUM TRENDS

This chapter deals with the curriculum of the Industrial Arts Department from 1955-1975. During the time covered by the study, eighty-two different courses were offered at one time or another. Some of the courses were offered for only two or three years; some were offered the entire time covered by the study; and some were only offered one year during the study.

In several instances a course listed in the catalog was not taught in the Industrial Arts Department. The reason was usually that not enough students needed the course to justify it being taught (1).

Seven tables are presented in the Appendix. Because of the large number of courses offered during the period between 1955 and 1975, one table showing all the subjects and the years they were taught was not possible. Therefore the courses have been broken down into the following seven tables:

Table VII--Mechanics and Graphic Arts Related Courses

Table VIII--Engineering, Electronics, and Craftwork Related Courses

Table IX--Drafting Related Courses

Table X--Metal and Welding Related Courses

Table XI--Wood Related Courses

Table XII--Graduate Level Courses

Table XIII--Miscellaneous Courses

The tables give the course number, course title, and the years each course was listed in the catalog. Several of the courses had one or more changes in the course title from 1955 to 1975. These changes are noted in the various tables.

The courses offered in 1955-56, the first year covered in the study, were designed to achieve specific purposes.

The courses offered by the Department of Industrial Arts are designed to serve four purposes: (1) to prepare students to teach Industrial Arts in the public schools; (2) to provide students majoring in other departments opportunities to supplement work in their chosen fields; (3) to assist students in selecting careers to follow in industry; and (4) to provide basic instruction and preparation in certain specialized fields (1, p. 243).

In 1955-56 a student had to complete fifty-four semester hours for a major in industrial arts in fulfilling the requirements for a Bachelor of Science degree. Forty-five of the fifty-four hours had to be in laboratory courses and a minimum of nine hours could be chosen from three fields: drawing, metal and woodworking (1, p. 243). Industrial arts majors obtaining a teaching certificate had to complete fifty-four semester hours in industrial arts courses and twenty-four semester hours in education courses. Fifteen hours of laboratory work were required of which six hours

could be in metal, drafting, and woodworking (1, pp. 243-244). Thirty-nine hours were required in the areas of drawing, metal, wood and a group of subjects that covered crafts, shop maintenance, electricity, and philosophy and history of industrial arts (1, p. 243). Education was the minor for industrial arts majors obtaining a teaching certificate. If an elementary teaching certificate was to be obtained, twelve semester hours in elementary education had to be completed in addition to the regular twenty-four hours of education required of all education majors (1, p. 243). Industrial Arts 334, Methods of Teaching Industrial Arts, was included in the education courses of all students working toward a teaching certificate in industrial arts.

In 1963-64 the requirements for a teaching certificate in industrial arts and Bachelor of Science degree in Industrial Arts changed. Forty-eight semester hours in industrial arts courses were required for a student obtaining a teaching certificate. Eighteen hours in education were also required (3, p. 251). The industrial arts courses required for a teaching certificate in industrial arts are listed below.

INDU 128--Beginning Engineering Drawing  
 INDU 228--Technical Drafting  
 INDU 121--Exploratory Woodwork  
 INDU 246--Machine Cabinet Construction  
 INDU 122--Exploratory Woodwork  
 INDU 234 or 236--General Sheet Metal or  
   General Welding  
 INDU 106--Introduction to Graphic Arts  
 INDU 107--Introduction to Power Mechanics  
 INDU 213--Introductory Craftwork



INDU 314--Applied Electronics  
 INDU 334--Method of Teaching Industrial Arts  
 INDU 431--History and Philosophy of Industrial  
 Arts

Twelve hours of which nine hours must be advanced were also required for a teaching certificate in industrial arts (3, p. 251). The eighteen hours of education courses were as follows:

EDUC 343--The American Secondary School  
 EDUC 345--The Adolescent in School and Society  
 EDUC 349--The Nature and Condition of Learning  
 EDUC 405H--Secondary School Curriculum and  
 Methods  
 EDUC 410H--Student Teaching  
 EDUC 411H--Student Teaching

A student obtaining a Bachelor of Science degree in Industrial Arts with no teaching certificate had to complete the following courses:

INDU 128--Beginning Engineering Drawing  
 INDU 141--Descriptive Geometrical Drawing  
 INDU 228--Technical Drafting  
 INDU 332 or 428--Machine Drawing or Advanced  
 Technical Drafting  
 INDU 121--Exploratory Woodwork  
 INDU 246--Machine Cabinet Construction  
 INDU 313--Advanced General Woodwork  
 INDU 317 or 416--Shop Care and Management or  
 Upholstery and Wood Finishing  
 INDU 122--Exploratory Metal  
 INDU 234 or 236--General Sheet Metal or General  
 Welding  
 INDU 311--Machine Shop  
 INDU 410--Advanced General Welding  
 INDU 420 or 425--Advanced General Machine Shop or  
 Advanced Pattern Making and  
 Foundry Techniques

The minor field had to consist of at least eighteen hours plus twelve hours of electives of which nine must be advanced (3, p. 251). These requirements remained the same through the rest of the time covered by this study.

Several courses offered by the Industrial Arts Department during the years of the study were so closely related in subject matter that they overlapped. In 1957-58, Industrial Arts 128, Beginning Engineering Drawing, was added to the curriculum. Industrial Arts 131, Mechanical Drawing, had been a part of the industrial arts curriculum from the first year of the study. Industrial Arts 131 and 128 were very similar in content and they overlapped in course material, so Industrial Arts 131 was dropped from the curriculum in 1962-63 (4).

In 1955-56 the last two agricultural oriented courses offered by the Industrial Arts Department were dropped. Industrial Arts 123, Farm Shop, and Industrial Arts, Tractor and Farm Machinery, were both listed in the catalog for the last time in 1955-56.

During 1959-60, four courses were dropped from the Industrial Arts curriculum (2). Industrial Arts 126, Principles of Carpentry; Industrial Arts 132, Elementary Printing; Industrial Arts 239, Automobile Repair Shop; and Industrial Arts 305, Pipe, Tube, and Electric Welding were discontinued. In 1962-63, Industrial Arts 137, Advanced Printing; Industrial Arts 237 and 238, Elementary and Advanced Linotype Operation; and Industrial Arts 300, Advanced Sheetmetal and Air Conditioning, were also dropped from the curriculum. In 1962-63, two courses that had been listed in the catalog for

only four years, Industrial Arts 208 and 209, Plane Surveying, were also dropped.

During the time that the above mentioned courses were being discontinued, several new courses were being added to replace them. Industrial Arts 106, Graphic Arts, was offered for the first time in 1959-60. Offset and Letterpress Printing, Industrial Arts 206, was started in 1963-64. The course number of Offset and Letterpress Printing was changed from Industrial Arts 206 to Industrial Arts 306 in 1967-68. Industrial Arts 247, Motor Tune-Up and Analyzing, was offered until 1965-66 when the name was changed to Industrial Arts 307, Power Mechanics (4).

The tables listed in the Appendix give the courses in their various categories and a study of them will show the changes in the Industrial Arts Department during the twenty years covered in the study.

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## CHAPTER V

### FACILITIES

This chapter deals with the physical facilities of the Industrial Arts Department from 1955-56 to 1974-75. Most of the information presented in this chapter was gathered in personal interviews during July 22, 1976 with A. F. Nelson of the Industrial Arts Department of North Texas State University. Some supplementary information was obtained from old maps that are kept in the resident engineer's office in the Administration Building on the North Texas State University campus.

In 1955-56, the first year covered by this study, the Industrial Arts Department was housed in seven buildings on the 300 acre North Texas State University campus. Most of the buildings were on the northeast corner of the campus and were located fairly close to each other. The Manual Arts Building that once housed some Industrial Arts Department activities was no longer used for an industrial arts classes in 1955-56 (1).

Crafts were taught in the crafts building which was located immediately south of the Historical Building. The Crafts Building was a temporary wooden building located where the north end of the Physics-Mathematics Building now

stands. The Crafts Building was a one story frame army building that housed the craft classes in the north end of the building. In the south end of the building the North Texas State College Laboratory School held wood shop classes (1).

Directly south of the Crafts Building was a two room building that housed the university post office prior to 1949. In 1949 the Student Union Building was finished and the college post office was moved there. This move left the old Post Office Building vacant (2, p. 32). In 1955 the building was being used for office space by the Industrial Arts Department. There was also one lecture room in the building. This building was a small square structure that stood where the south end of the Physics-Mathematics Building now is located. S. A. Blackburn, E. B. Blanton and A. F. Nelson had their offices in that building (1).

Directly behind the old Post Office Building and the Crafts Building was the North Texas State College Power Plant. It housed the two laboratories for teaching classes in wood-working in 1955.

Immediately west of the Power Plant was the Drafting Building. This building was a long, two-story army dental building that was put on the campus in 1948. There were two classrooms upstairs and two rooms downstairs. The Drafting Building held four offices and four classrooms (1).

Figure 6 shows the location of all the buildings that were used by the Industrial Arts Department during the 1955-1975 time period.

The metalwork classes were taught in a metal building that was located south of the old Post Office Building. It was a long building that stood between the present Business and Physics-Mathematics Buildings. It held all the metal machines and equipment, sheet metal machines, welders, and the foundry equipment. The metals building was moved and is now in use as a maintenancewarehouse building in the Service Center on the west end of the North Texas State University campus (1).

Across Avenue A, which ran north and south in front of the old Crafts Building, was a frame building on Sycamore Street that was used by the Industrial Arts Department. It was a two-story frame house, but the Industrial Arts Department only used one of the rooms for classes. It was located east of the College Club House which was on the corner of Avenue A and Sycamore Street.

In 1955 the Industrial Arts Department taught printing classes in the Journalism Building, which was built in 1949. The Journalism Building was located at the south end of the campus near the end of Prairie Street.

In 1957 construction was started on a new Industrial Arts Building that would house all the classes of the department. It was built where the president's house stood, on the

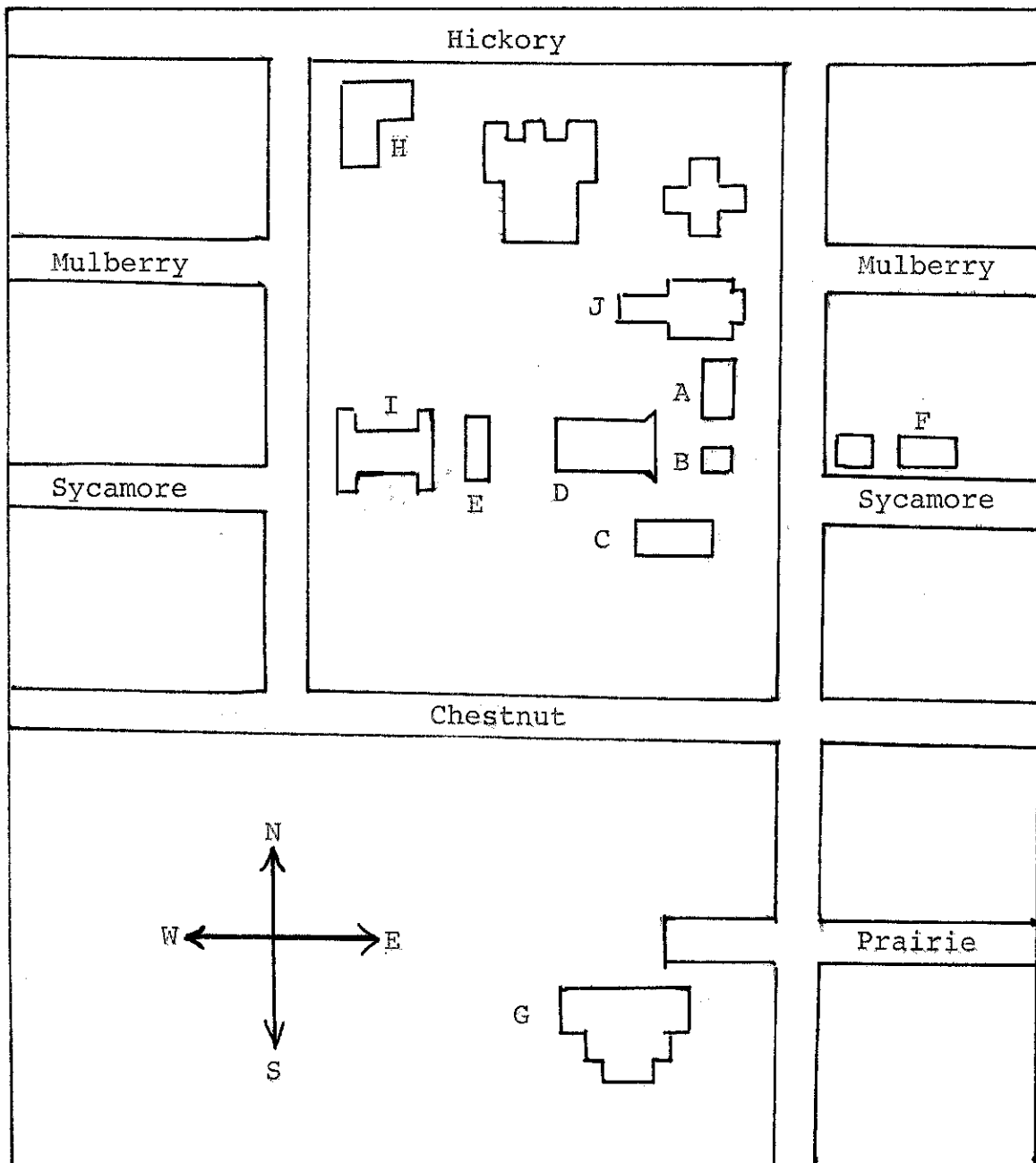


Fig. 6--Locations of buildings used by the Industrial Arts Department from 1955-1975,

- |                    |                                |
|--------------------|--------------------------------|
| A--Crafts Building | F--House Used for Lecture Room |
| B--Old Post Office | G--Journalism Building         |
| C--Metals Building | H--Industrial Arts Building    |
| D--Power Plant     | I--Manual Arts Building        |
| E--Drafting        | J--Historical Building         |



corner of Hickory Street and Avenue B. The construction was finished in 1959 and all industrial arts classes were moved into the new building. It is a two-story brick building with offices upstairs and downstairs. There are five laboratory rooms on the bottom floor. On the second floor there are eight laboratory rooms and one lecture room. The Industrial Arts Department was housed in that building from 1959 to 1975, the last year of the study.

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## CHAPTER VI

### SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

The major purpose of this study was to look objectively at the Industrial Arts Department at North Texas State University during the twenty years between 1955 and 1975. The study was divided into four main areas: enrollment trends, faculty, curriculum, and the physical facilities provided for the Industrial Arts Department. Data were collected from Industrial Arts Department records, personal interviews, official North Texas State University records, Bulletins of North Texas State University, and past studies of the department.

Chapter I of this study included an introduction, statement of the problem, limitations of the study, source of data, treatment of data, organization of the study, definition of terms, and related studies.

Chapter II dealt with the enrollment trends of the Industrial Arts Department between the 1955-56 and the 1974-75 school years. These data were taken from the twelfth day class rolls kept by the Industrial Arts Department (2) and the "Fact Book," 1976 edition (1), published by North Texas State University. The largest increase in

the total number of class cards for the time covered by the study occurred between the 1973-74 and the 1974-75 school years. The number of student class cards went from a total 2559 in 1973-74 to 2852 in 1974-75 (2). The 1967-68 school year had the largest total of student class cards of any year covered by the study. There were 2907 student class cards listed on the rolls during the 1967-68 school year (2). The 1959-60 school year, the first year that data was available, had the smallest total of student class cards with a total of 1949 (2). The number of class cards seldom if ever indicated the actual number of students in the Industrial Arts Department during a given semester. Each student usually enrolls for more than one course in the department. The 1967-68 total of 2907 class cards could very well have been a product of 323 students, if all of them took nine semester hours. That is not the case and there is no accurate way to determine the actual number of students that make up the total number of class cards. Therefore, the class card count is not thought of as the total number of students in the department during a specific school year.

The second source of data giving the semester credit hours enrolled in industrial arts courses was used to show trends in the department's enrollment for the years covered by the study. This second source, the "Fact Book," covered the school years 1956-57 to 1974-75. In 1956-57, the first year data were available, the total number of semester hours

taken in the Industrial Arts Department was 6351 (1, p. 2.4-15). The school year with the highest number of semester hours enrolled was 1966-67 with 8606 hours. In 1967-68, the year with the largest total of class cards during the time of the study, the semester credit hour figure was 8443, the second highest total for semester hours. During the 1966-67 year when the semester credit hour total was at its peak, the class card total was 2805, the third highest total of the study. The two sources of data show parallel tendencies when observed graphically in Figure 1 (page 12) and Figure 2 (page 14). The discrepancy between the 1967-68 school year having the highest total of class cards and the 1966-67 school year having the highest number of semester credit hours, could be the result of several things. One of the reasons the two sets of data did not reach their largest total during the same school year could be that fewer students enrolled for more semester hours in 1966-67 than in 1967-68. A second possibility could be that more students took one or two hour courses during the 1967-68 school year than during the 1966-67 school year.

The "Fact Book" also gave the data for the total number of degrees awarded by the Industrial Arts Department from 1960 to 1975. The 1971 school year had the largest total of bachelor's and master's degrees awarded with 109. The 1972 and 1968 school years both had over 100 bachelor's and master's degrees awarded. There were forty-nine degrees

awarded in 1960, the first year that data were available. During 1971 there were 97 bachelor's degrees awarded, the largest number during the study. The year with the smallest number of bachelor's degrees was 1960, with a total of thirty-eight. There were fifteen master's degrees awarded during 1972 which was the high. Nineteen sixty-seven had only four master's degrees awarded, the lowest figure of the study.

The "Fact Book" also gave the number of students enrolled from 1961 to 1975 who listed Industrial Arts as their major field of study. Nineteen sixty-eight had a total of 429 students who listed Industrial Arts as their major, the largest total of the study. There were 221 industrial arts majors in 1974 which was the lowest number of industrial arts majors during the study. The smallest number of graduate students who listed industrial arts as their major was twelve in 1962. There were fifty-six graduate students majoring in industrial arts in 1970, the largest total of the study. The largest number of undergraduate students majoring in industrial arts was 386 in 1968. There were only 192 undergraduate industrial arts majors in 1974, the low for the time covered by the study.

A study of the twelfth day class rolls of the Industrial Arts Department gave data for the number of class cards for male and female students. During the 1965-66 school year there were 117 class cards of female students as opposed to 2756 class cards of male industrial arts students. That year

4.1 per cent of the Industrial Arts Department enrollment was made up of class cards of female students. This was the lowest percentage of the study which covered the school years from 1959-60 to 1974-75. The 1974-75 school year had 19.6 per cent of the total number of class cards representing female students. That year there were 558 class cards issued to female students and 2294 class cards issued to male students in the Industrial Arts Department. There was a steady increase in the percentage of class cards representing female students from the 1967-68 school year total of 6.1 per cent to the 1974-75 school year total of 19.6 per cent of the total Industrial Arts Department enrollment.

Chapter III presented the data concerning the Industrial Arts Department faculty. There were six faculty members who taught in the department from 1955-56 to 1974-75, the entire length of the study. Included were E. B. Blanton, D. W. Duncan, J. C. McCain, P. N. McClod, A. F. Nelson, and L. E. Sorrels. There was a total of twenty-six different faculty members on the faculty during the course of the study. In the 1970-71 school year there were seventeen faculty members in the Industrial Arts Department, the largest number of instructors during the time covered by the study.

The curriculum, presented in Chapter IV, went through many changes between the 1955-56 and the 1974-75 school years. In the 1955-56 school year a student majoring in industrial arts had to complete fifty-four semester hours

in industrial arts courses for a Bachelor of Science degree. Forty-five of those hours had to be in laboratory courses. Industrial Arts majors obtaining a teaching certificate had to complete fifty-four semester hours in industrial arts courses and twenty-four semester hours in education courses. In the 1963-64 school year the requirements for a degree changed. A student working towards a teaching certificate in industrial arts had to complete forty-eight semester hours in industrial arts courses and eighteen hours in education courses. A student obtaining a Bachelor of Science degree had to complete forty-eight semester hours in industrial arts courses and eighteen semester hours in a chosen minor field.

There was a total of eighty-two different courses listed in the curriculum by the Industrial Arts Department from 1955 to 1975. Several courses overlapped in content and were combined and taught as one course. Several courses were discontinued early in the study when a movement away from farm oriented courses was started. Industrial Arts 123, Farm Shop, and Industrial Arts 124, Tractor and Farm Machinery, were both discontinued in 1955-56. Industrial Arts 126, Principles of Carpentry; Industrial Arts, 132, Elementary Printing; Industrial Arts 239, Automobile Repair Shop; and Industrial Arts 305, Pipe, Tube, and Electric Welding, were discontinued in 1959-60. The 1962-63 school Industrial Arts 137, Advanced Printing; Industrial Arts 237



and 238, Elementary and Advanced Linotype Operation; and Industrial Arts 300, Advanced Sheetmetal and Air Conditioning, were also dropped from the curriculum. These courses dealt with specific skills and they were gradually phased out of the department's curriculum. During the time these courses were being discontinued, new courses were being added. Industrial Arts 106, Graphic Arts, was added in 1959-60, and Industrial Arts 206, Offset and Letterpress Printing, was started during the 1963-64 school year. Of the different subject areas offered in the Industrial Arts Department, Drafting and Drafting related courses were in the most abundance. There were sixteen different undergraduate courses offered between 1955-56 and 1974-75 that dealt with some area of drafting.

Chapter V of the study presents the data on the physical facilities of the department from 1955 to 1975. In 1955-56 the Industrial Arts Department was housed in seven buildings on the North Texas State College campus. Crafts were taught in the Crafts Building, located immediately south of the Historical Building. Directly south of the Crafts Building was the old college Post Office Building. Office space and one lecture room of the department were located in the Post Office Building. Behind the old Post Office Building was the Power Plant. Two laboratories for woodworking were housed there in 1955-56. West of the Power Plant was the Drafting Building. There were four offices and four

classrooms of the Industrial Arts Department housed in the Drafting Building. The metal classes were housed in a building that was located south of the old Post Office Building. All the metal shop laboratories and lectures were taught in this building in 1955-56. Across the street from the Crafts Building was a house that held one lecture room used by the department for classes in 1955-56. The printing classes were held in the Journalism Building at the south end of the campus in 1955-56. In 1959 all classes of the Industrial Arts Department were moved to the newly completed Industrial Arts Building located on the corner of Hickory Street and Avenue B. The department was still housed in this building in 1975, the last year of the study.

### Findings

Based upon the data presented in this study, the following were found:

1. The Industrial Arts Department's class cards enrollment of students remained relatively stable from year to year and did not experience any major yearly fluctuation;

2. The semester credit hours recorded in the Industrial Arts Department each year indicated relatively little fluctuation from year to year;

3. The number of undergraduate degrees far outnumbered the total of graduate degrees awarded each year by the Industrial Arts Department;

4. The total number of degrees awarded by the Industrial Arts Department during the last years of the study were substantially less than the number awarded during the 1965-1970 school years;

5. The number and percentage of class cards for female students steadily increased each school year from 1967-68 to 1974-75;

6. The curriculum of the Industrial Arts Department moved away from courses that taught specific skills and began to offer subjects that seemed to emphasize a more general outlook on the subjects that could be utilized by the public school teacher;

7. The twelfth day class rolls of the Industrial Arts Department indicated that the most popular courses with the female students were the ones that could be used for credit for interior design majors.

### Conclusions

The following conclusions were made from a study of the findings:

1. The majority of the courses offered by the Industrial Arts Department are designed for the undergraduate student instead of the graduate student;

2. More women are taking industrial arts courses, mainly in the area of interior design. The courses in this area could possibly become crowded and more sections required;

3. The department will probably add more courses to its curriculum and phase out other courses in an attempt to keep the courses offered up-to-date and beneficial for the graduates of the department.

#### Recommendations

In view of the findings and conclusions of this study, the following recommendations are made:

1. A historical study of the Industrial Arts Department be made every ten years;

2. A study be made of the reasons why the female student enrollment is increasing in the Industrial Arts Department and what courses need to be offered to accommodate these students;

3. A study be made to determine if the present Industrial Arts facilities are adequate to handle the number of students enrolled and the number of courses taught.

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APPENDIX

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TABLE II

CLASS CARD ENROLLMENT IN THE INDUSTRIAL ARTS  
PROGRAM FOR THE YEARS 1959-60 TO 1974-75

Year	Number of Class Cards
1959-60 . . . . .	1949
1960-61 . . . . .	2035
1961-62 . . . . .	2042
1962-63 . . . . .	2104
1963-64 . . . . .	2348
1964-65 . . . . .	2628
1965-66 . . . . .	2873
1966-67 . . . . .	2805
1967-68 . . . . .	2907
1968-69 . . . . .	2791
1969-70 . . . . .	2482
1970-71 . . . . .	2523
1971-72 . . . . .	2473
1972-73 . . . . .	2624
1973-74 . . . . .	2559
1974-75 . . . . .	2852



TABLE III

SEMESTER CREDIT HOURS IN THE INDUSTRIAL ARTS DEPARTMENT  
FROM 1956-57 TO 1974-75

Year	Semester Credit Hours
1956-57 . . . . .	6351
1957-58 . . . . .	6354
1958-59 . . . . .	5553
1959-60 . . . . .	5763
1960-61 . . . . .	5747
1961-62 . . . . .	6072
1962-63 . . . . .	6270
1963-64 . . . . .	6337
1964-65 . . . . .	7386
1965-66 . . . . .	8028
1966-67 . . . . .	8606
1967-68 . . . . .	8443
1968-69 . . . . .	8260
1969-70 . . . . .	7567
1970-71 . . . . .	7454
1971-72 . . . . .	7325
1972-73 . . . . .	7415
1973-74 . . . . .	7576
1974-75 . . . . .	7720

TABLE IV  
DEGREES AWARDED BY THE INDUSTRIAL ARTS  
DEPARTMENT FROM 1957 TO 1975

Year	Master	Bachelor	Total
1957	4	44	48
1958	4	67	71
1959	9	63	72
1960	11	38	49
1961	8	43	51
1962	9	59	68
1963	8	43	51
1964	11	49	60
1965	10	58	68
1966	5	46	51
1967	4	51	55
1968	9	93	102
1969	11	77	88
1970	11	87	98
1971	12	97	109
1972	15	91	106
1973	9	78	87
1974	10	79	89
1975	8	64	72

TABLE V  
NUMBER OF INDUSTRIAL ARTS MAJORS  
FROM 1961-1975 FALL SEMESTERS

Year	Undergraduate	Graduate	Total
1961	212	18	230
1962	212	12	224
1963	235	22	257
1964	262	20	282
1965	324	28	352
1966	363	20	383
1967	353	34	387
1968	386	43	429
1969	348	45	393
1970	281	56	337
1971	276	55	331
1972	234	43	277
1973	233	39	272
1974	192	29	221
1975	220	32	252

TABLE VI

NUMBER AND PERCENTAGE OF CLASS CARDS OF MALE AND FEMALE  
STUDENTS IN THE INDUSTRIAL ARTS DEPARTMENT FROM  
1959-60 TO 1974-75

Year	Male		Female	
	Number	Percentage	Number	Percentage
1959-60	1641	84.2	308	15.8
1960-61	1707	83.9	328	16.4
1961-62	1748	85.6	294	14.4
1962-63	1797	85.4	307	14.6
1963-64	2135	90.9	213	9.1
1964-65	2470	93.9	158	6.1
1965-66	2756	95.9	117	4.1
1966-67	2621	93.4	184	6.6
1967-68	2730	93.9	177	6.1
1968-69	2601	93.2	190	6.8
1969-70	2261	91.1	221	8.9
1970-71	2285	90.6	238	9.4
1971-72	2099	84.9	374	15.1
1972-73	2220	84.6	404	15.4
1973-74	2081	81.3	478	18.9
1974-75	2294	80.4	558	19.6

TABLE VII  
 MECHANICS AND GRAPHIC ARTS  
 RELATED COURSES

Course Number	Course Title	Years Included in Curriculum
106	Graphic Arts	1960-1975
107	Introduction to Power Mechanics	1960-1975
123	Farm Shop	1955
124	Tractor and Farm Machinery	1955
137	Elementary Printing	1955-1959
138	Advanced Printing	1955-1962
206	Offset and Letterpress Printing	1963-1967
237	Elementary Linotype Operation	1955-1962
238	Advanced Linotype Operation	1955-1962
239	Automobile Repair Shop	1955-1959
247	Motor Tuneup and Analyzing	1955-1965
306	Offset and Letterpress Printing	1968-1975
307	Power Mechanics	1966-1975

TABLE VIII  
ENGINEERING, ELECTRONICS, AND CRAFTWORK  
RELATED COURSES

Course Number	Course Title	Years Included in Curriculum
208	Plane Surveying	1959-1962
209	Plane Surveying	1959-1962
213	Introductory Craftwork	1955-1975
220	Safety Engineering	1955-1967
245	Shop Mathematics*	1955-1962
248	Design, Construction, Maintenance of Scientific Equipment	1960-1965
314	Elementary Electronics for Beginners**	1955-1975
315	General Crafts***	1955-1967
325	Plastic Materials and Processes	1968-1975
414	Electricity and Applied Electronics	1963-1975

\*In 1967 course was changed to Industrial Mathematics.

\*\*In 1956 course was changed to Electricity for Industrial Arts Teachers. In 1963 course was changed again to Applied Electronics.

\*\*\*In 1964 course was changed to Advanced Crafts.

TABLE IX  
DRAFTING AND DRAFTING RELATED COURSES

Course Number	Course Title	Years Included in Curriculum
128	Beginning Engineering Drawing	1957-1975
131	Mechanical Drawing	1955-1962
132	Engineering Drawing	1955-1962
141	Descriptive Geometrical Drawing	1957-1962
228	Technical Drafting	1963-1975
230	Architectural Details*	1955-1975
232	Architectural Drawing (House Planning)	1955-1962
331	Pattern Drafting	1955-1963
332	Machine Drawing	1955-1975
335	Advanced Architectural Drawing	1955-1975
337	Advanced Machine Drawing	1955-1962
338	Advanced Sheet Metal Drawing	1955-1962
339	Map Drafting	1955-1975
405	Design in Industrial Arts	1955-1975
428	Advanced Technical Drafting	1963-1975
438	Technical Illustration Procedures and Practices	1968-1975

\*In 1957 course name changed to Architectural Drawing.

TABLE X  
METALS AND WELDING RELATED COURSES

Course Number	Course Title	Years Included in Curriculum
122	Exploratory Metal	1955-1975
234	General Sheet Metal	1955-1975
236	General Oxacetylene Line Welding*	1955-1975
300	Advanced Sheet Metal and Air Conditioning	1955-1962
305	Pipe Tube and Electric Welding	1955-1959
311	Machine Shop	1955-1975
410	Advanced General Welding	1955-1975
420	Advanced General Machine Shop	1955-1975

\*In 1956 course name changed to General Welding.

\*\*In 1957 course name changed to Advanced Sheet Metal.



TABLE XI  
WOOD AND WOOD RELATED COURSES

Course Number	Course Title	Years Included in Curriculum
121	Exploratory Woodwork	1955-1975
126	Principles of Carpentry	1955-1959
244	General Benchwork	1955-1975
246	Machine Cabinet Construction	1955-1975
313	Advanced General Woodwork	1955-1975
416	Upholstery and Wood Finishing	1955-1975

TABLE XII  
GRADUATE LEVEL COURSES

Course Number	Course Title	Years Included in Curriculum
500	Wood Technology	1970-1975
510	Welding Metallurgy	1970-1975
520	Principles and Application of Numerically Controlled Machines and Repetitive Operations	1970-1975
528	Industrial Graphics	1970-1975
533	Jr. High Problems in Industrial Arts	1955-1975
535	Selection and Organization of Subject Matter for Jr. High and High School	1955-1975
536	Measurement of Manipulative Skills and Technical Knowledge	1963-1975
540	Study of Tools and Materials for Industry	1955-1975
541	Research Techniques and Procedures in Industrial Arts Education	1955-1975
551	The Development of Shop Projects and Instructional Aids	1955-1975
552	Design and Construction of Shop Tools and Equipment	1955-1975
553	Planning and Organizing Industrial Arts Laboratories	1963-1975
556-557	Industrial Plant Experience	1955
590-591	Special Problems	1955-1975
592-593	Research Problems in Lieu of Thesis	1971-1975
595	Thesis Seminar in Industrial Arts	1955-1975

TABLE XIII  
MISCELLANEOUS COURSES

Course Number	Course Title	Years Included in Curriculum
105	Introduction to Industrial Arts	1960-1962
125	Pattern Making and Foundry Work	1955-1975
200	Industrial Arts for the Elementary School	1955-1975
317	Shop Care and Management	1955-1975
334	Methods of Teaching Industrial Arts	1955-1975
425	Advanced Pattern Making and Foundry Techniques	1955-1975
431	History and Philosophy of Industrial Arts	1955-1975
432	Operation, Administration and Supervision of Industrial Arts	1955-1975
490	Special Problems in Industrial Arts	1955-1975
491	Special Problems in Industrial Arts	1955-1975

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