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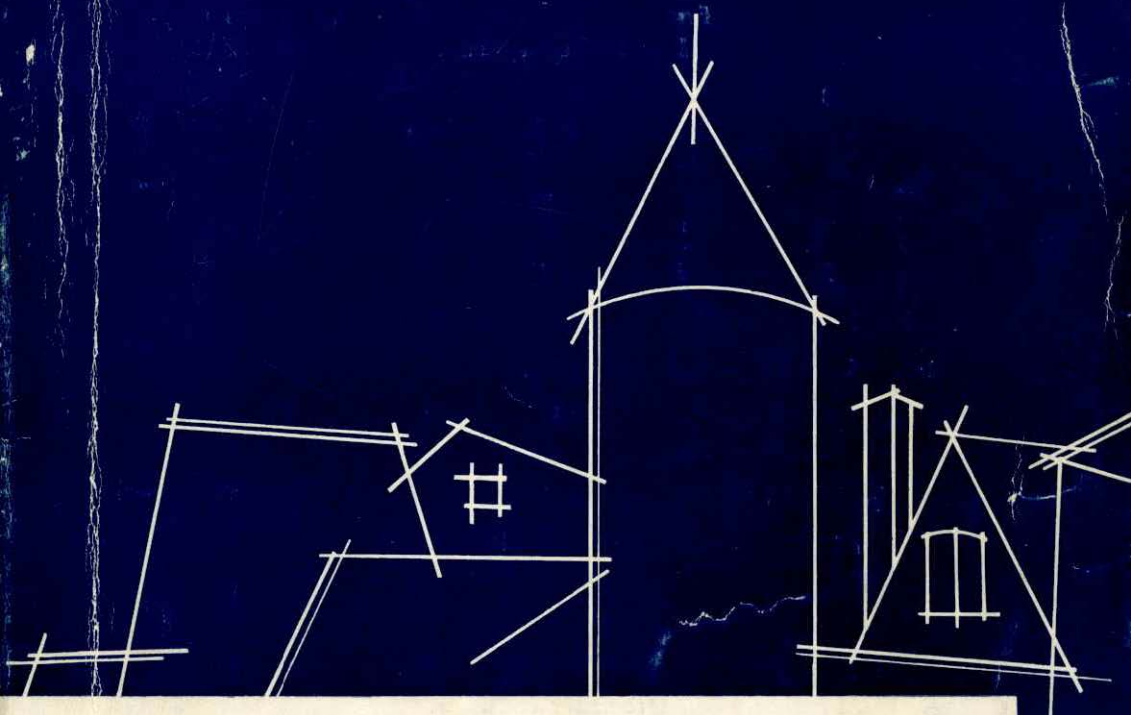
Course Catalogs

Fall 9-1-1959

Course Catalog, 1959-1960

Newark State College

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NEWARK STATE COLLEGE

Union, New Jersey

Charles J. Longacre

59-60

COLLEGE CALENDAR

1958 - 1959

1958

- September 2 —Seniors visit their junior practicum centers for first week of school. Opening date varies with different school systems.
- September 8 —College opens.
September 8-12: Faculty meetings; registration and x-ray examinations for all students; testing and orientation for freshman and transfer students.
- September 28 —College Open House
- October 4 —Dedication Day
- October 6 —Fall Convocation
- November 6, 7 —New Jersey Education Association Convention.
No college classes.
- November 27, 28 —Thanksgiving Recess
- December 18 —Christmas Recess begins at end of day

1959

- January 5 —Classes resume after Christmas Recess.
- January 22 —First semester ends.
- January 26 —Second semester begins.
January 26 - 28: Registration and faculty meetings.
- March 26 —Spring Recess begins at end of day.
- April 6 —Classes resume after Spring Recess.
- May 27 —Final examinations begin.
- May 31 —Baccalaureate Program
- June 4 —Commencement

Charles J. Longacre

NEWARK STATE COLLEGE

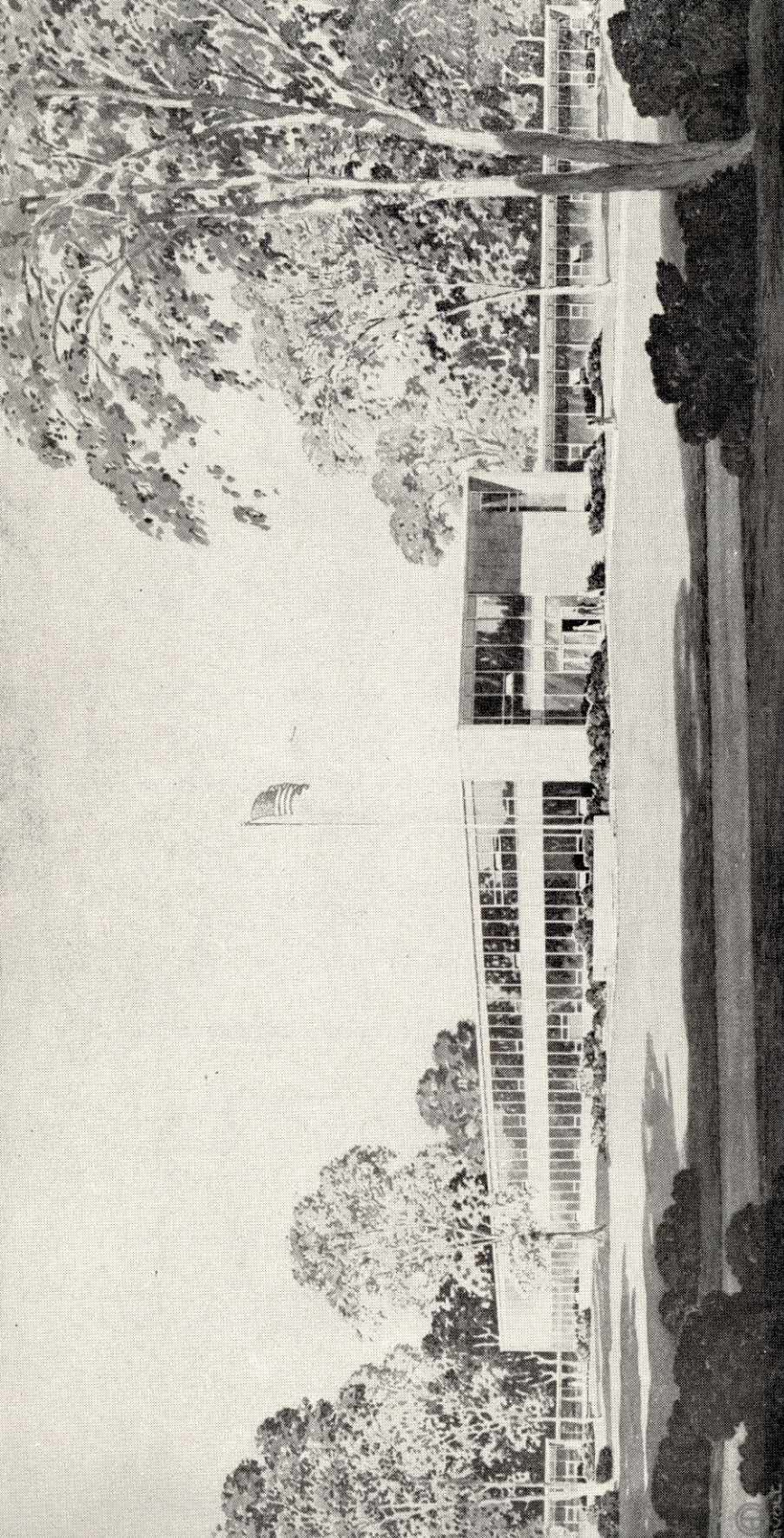
Union, New Jersey

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THE DIRECTOR OF ADMISSIONS
Newark State College
Morris Avenue
Union, New Jersey

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TOWNSEND HALL, ADMINISTRATION AND CLASSROOM BUILDING AT THE UNION CAMPUS

SECTION I

About the College and You

This catalogue is written for you—to help you decide if you want to enter the teaching profession and if you want to attend Newark State College at Union. Too often it is difficult to gather the necessary information for this decision because the traditional college catalogue is written in obscure terms and is not readily understood. Therefore, in preparing this catalogue, we have tried to write so that you will be able to know all about us here at Newark State.

What do you want from life? If you are like most young people your age, you have done a lot of thinking about this. Such goals as security, success, and happiness have played a large part in this thinking of yours. Maybe you know or have observed people who have realized all of these objectives; others, two; and some only one. But above all, you have noticed that those who get the most from life are those who have tried always to put the most into it—those who gave more than they took out.

That's what good teachers do. They enjoy working with and for others—giving more than they take. Teaching is just that—giving. And it's the most rewarding, most meaningful career a boy or girl could select—that is, the boy or girl with the right qualifications.

Teaching can be not only a rewarding social service, but it can also be exciting and great fun. You are dealing not with inanimate objects but with real live young people—active, dynamic human beings. Every day is a wonderful new adventure.

Should you select teaching as your life career, you will find ample opportunity for growth. Your outlook on life, your personality will broaden. You too will grow and develop. Long after the substance of what you have taught has been forgotten, your personality will color and affect the lives of innumerable children. Every great advance in world thinking originated with some great teacher. There has not been a single momentous change in the entire history of mankind which did not receive its impetus from some educational leader. There has never been a more urgent period in all history than the present. All of us have so little time in which to learn so much. These are the times that demand not only devotion to the welfare of one's country but also greatness of faith, spirit, and action. Today's teacher realizes that on his shoulders lies the responsibility of leading his young people forward so that they may improve and preserve our American way of

life. His is the hand that must help stave off impending world chaos. Admittedly, then, his is a gargantuan responsibility. He has the capacity to make or break individuals, countries, and civilizations. Since teaching, therefore, is today undeniably the most important profession in the world, yours will certainly be a key position in which you will be able to do much good for all mankind.

What did you like about the best teacher you ever had?

"He was fair and sincere; he made his classes so interesting—we were in on all the planning from the start—that we hated to miss one of them.

"Then, too, although he knew his 'stuff', he never used sarcasm to make us feel inferior or insecure. He knew what made us 'tick', but above all he was really our friend, ever ready to help us when we went to him with our problems whether they were how to print a better letter 'b' in the first grade or how to get the family car for the senior prom."

You certainly have described vital attributes which make for the good teacher; there are also a few more things which we might add: He is active in club projects, in community activities, and in church work. He is a well-rounded individual in that he is interested in television, plays, art, music, books, and in other cultural activities. He sees his favorite baseball team through the World Series and really enjoys both participating in and watching athletics.

How then does a modern college like Newark State College, Union, help you young people to become this interesting and dynamic person who is today's good teacher?

In the following pages, we shall describe some of the aspects of college life that go toward producing this good classroom teacher for the public schools of New Jersey.

Long before you enter Newark State in September you will feel that you belong. The transition from high school to college need not be difficult, for your high school principal and guidance counselor are notified early in the year of the entrance examination date. They will tell you when to write to the registrar at the college for your application blanks which you will return early, not only to assure yourself a place in the incoming freshman class but also to arrange for your pre-entrance interview before you take your entrance examinations.

Early in February or March, then, when you come to visit with us at Union, you will be able to ask questions about the teaching profession. During your interview with a faculty member, you will learn much about the college itself. You will also be invited to tell about

yourself, your hopes and ambitions; about your experience or work with children; about your high school extracurricular activities; and about your hobbies and other interests. On the same day you will meet some of the college students who will be ready to answer all sorts of questions about what goes on at college.

In a small college like Newark State everyone, faculty and students alike, gets to know everyone else very quickly. A friendly, democratic attitude that certainly is catching seems to permeate the halls, for we are interested in you as an individual—not in you simply as a number nor in you merely for your mind alone. We are interested in the whole—the well-rounded you! We also want you to feel at home under a variety of circumstances and consequently will provide many opportunities in which you will acquire social poise and confidence.

Our unique student personnel program, about which you can read more later on in this catalogue, provides many of these opportunities. When you register you will learn the name of your counselor, who will help you with your problems, large and small, social and academic, throughout your next four years. You can meet with your counselor, a faculty member and your friend, in his office, over a cup of coffee at the snack bar, or at his home during a counseling party. For from time to time there may be parties, picnics, and New York theatre trips all planned by your own counseling group. Usually your counselor has eighteen or nineteen others, both under and upper-classmen, in addition to you in his counseling group.

You will have many, many opportunities to make friends, for your social life will be all-encompassing. You may want to join the College Social Committee which helps plan such functions as the all-college dance, the Christmas party, the junior and senior teas, and the tea for cooperating teachers.

College life is only partly teas. It is also the Norms Theatre Guild, the Dance Study Club, the Women's Glee Club, the Wapalanne Club, the College Forum, the Orchestra, and the General Elementary Men's Guild.

You'll have many occasions to show your creative side. Do you want to direct a play or construct scenery for it? Is modern dance choreography your forte? Perhaps you would like to be a reporter for the *Reflector*, the college newspaper, or a member of the staff of *Memorabilia*, the college yearbook. Or do you prefer to work in the artistic world of swirling mobiles and montages? No matter what your interest, there is a club or activity to challenge your creative powers.

Before classes begin you will have spent two days at the college with the other members of the freshman class, learning your way around the campus, getting acquainted with the sophomores who will be your guides and hosts and hostesses, meeting your counselor, and beginning to feel at home in your new college. This short orientation period will be followed by a series of small group meetings which will convene once a week for about nine weeks. During these meetings, upper-class student leaders will talk with you about the Student Council, sports, clubs, and other activities. You will meet the college president, the dean, and the director of student personnel. Experts will also be on hand to discuss good grooming and correct social procedure and usage, so important to you now that you are in college and preparing to be a teacher. Personal development and growth will be stressed through participation.

You will find many classes different from those in high school. New techniques will be used in conducting classes. More often than not your class, especially if it is one in which there is likely to be a good deal of discussion, may employ the democratic group process with the leader, the evaluator, the recorder, and the resource people drawn from the classroom personnel. Your professor will probably sit in the informal semicircle with the rest of you.

Your college professors will bring much breadth and width of experience to your classes. One may have served as an exchange professor in a European university; another may, as a member of a team sent out by UNESCO, have developed a school system in the bush country of West Africa; and still another may have taught in and supervised every grade from the first through the twelfth in the New Jersey public school system.

Assignments, too, will call for different planning and thinking. You will be on your own. You will learn the value of budgeting your time and of seeing your projects and assignments quickly and economically through to fruition. There will be no one standing over you to remind you about papers due or see that you prepare your daily work. Off-campus field trips to various state institutions and agencies as well as to museums and other points of cultural interest in the metropolitan area will add zest to your classes.

Your introductory lessons in the use of the library, given by the librarian in connection with your freshman English classes early in the school year, will pay tremendous dividends. The ability to locate quickly and efficiently all desired information, reference books, pamphlets, newspapers, and magazines is a valuable asset to any college

student. All motion picture films, the television set, slides, and other audio-visual aids may be obtained through the library. The entire library staff at the college is ever ready to help you with any research problem you may meet.

Courses at Newark State do not stress the acquisition of knowledge for the sake of knowledge alone nor the memorization of mere facts and subject matter. Your college must always be flexible, must always be adapting its processes of teacher preparation to the ever-changing demands of modern life. You will find that your courses are designed to assist you to use what you will learn. Some of this learning can be applied right away; another part of it will become more meaningful once you begin your junior practicum. Preparing to teach means a college life of action—of doing as well as of thinking.

One of the most outstanding characteristics of the successful teacher is his adaptability and his ability to cooperate with and get along smoothly with all types of people. You, as a future teacher, will have ample opportunities to acquire this adaptability not only through your regular extracurricular clubs and activities, mentioned previously, but also through the work of your Student Council.

You are fortunate, if you decide to become a teacher and to attend Newark State, because your college is located in the heart of the educational center of America. You will be close to many outstanding cultural advantages and activities in Northern New Jersey and New York City.

Much of what happens to you during your college career will depend upon how you use or react to what is offered you. Will you take advantage of these wonderful chances to visit museums and educational exhibits? Will you attend lectures or group discussions given by outstanding men and women in your chosen field? You have unique and nationally-known library facilities at hand. Will you use them? There will be many group meetings. Attendance at some is voluntary. Will you be among those present?

The ultimate characteristic of the good future teacher is his independence of mind—his dynamic, scintillating curiosity and outlook on life. He thinks straight, and he thinks clearly.

The opportunities to become this type of individual are awaiting you. Will you accept them? In four years will you be *that good teacher* in the public schools of New Jersey?

It is now up to you.



COLLEGE MOTTO FROM THE NEWARK CAMPUS

SECTION II

Newark State College Its Past, Present, and Future

Location

Located on Morris Avenue (Route 82) where it meets with North Avenue in Union, Union County, New Jersey, Newark State College can easily be reached from most northern, central, and southern parts of New Jersey. Being only one mile directly north of both the New Jersey Central Railroad and the Pennsylvania Railroad stations in Elizabeth, the college is ideally located. This is especially so when one considers also that via Route 82 the college is situated just one mile south of both Route 22 and the New Jersey Garden State Parkway.

History

Newark State College is one of the oldest teacher training institutions in the United States. In 1955-1956 it celebrated its centennial year. Founded as the normal school for the City of Newark in 1855, it was the fifth of its kind in existence in the United States at that time. Its program grew with the developing demands for the education of teachers until in 1913 the State of New Jersey assumed the responsibility for its operation, and the name was changed to New Jersey State Normal School at Newark. From 1914 until 1958 the college stood on one of the most historic sites in the city of Newark, for 187 Broadway had also been the location of the home of General Philip Kearny, Mexican and Civil War hero.

In December, 1952, the New Jersey State Legislature allocated \$3,700,000 for relocation of Newark State College in Union. The college moved to the new 120-acre campus in March, 1958.

In the early days the present site of the college was in Elizabeth Town, the oldest English settlement in New Jersey, which was settled in 1664 by the English when they defeated the Dutch in the fight for control of New Amsterdam. Elizabeth Town, now Elizabeth, was named by Philip Carteret, first English governor of New Jersey, for the wife of his cousin, Sir George Carteret.

Elizabeth Town, including the present college site, was also deeply involved in the American Revolution. It was the Achilles' heel in Washington's defenses against the British in New York and on Staten Island across the Kill von Kull from Elizabeth Town.

The year 1780 was especially bad for the area. There were major and bloody encounters at Connecticut Farms (now Union) and Springfield. Again and again, the British from Staten Island made quick thrusts and sudden forays into Elizabeth Town burning and pillaging the area around about it. One of the newly-erected (1772-3) and imposing mansions slated for burning by the Hessians was Liberty Hall, across Morris Avenue from the present college site. As the home of the rebel governor, who was away conferring with General Washington in Morristown, it was a likely target for destruction. Only the quick wit and quick thinking of courageous Susanna Livingston, whose father had built the mansion, saved the building.

Susanna's father was William Livingston, New Jersey's first governor. It was at Liberty Hall that George Washington was a frequent visitor. Here, too, Alexander Hamilton learned statecraft; and in the parlor of this historic mansion John Jay, the first Chief Justice of the United States Supreme Court, took Sarah Livingston as his bride. The Keans, direct descendants of Governor Livingston, still own Liberty Hall, now called Ursino.

The college site has always been historic ground. For more than a hundred years after Susanna Livingston defied the Hessians, the present campus resounded to the sound of soldiers' marching feet. The war was the Spanish American War, and the soldiers were Colonel Theodore Roosevelt's Rough Riders, who encamped here shortly before they embarked for Cuba to free the Cubans from the Spanish yoke.

A bit of Old England is to be found in the Kean Library, one of the older buildings on the campus. The library is paneled with oak brought from the famous Sherwood Forest, the home of Robin Hood, in England.

The present five structures, modern and functional in architecture, include a library, a college center building, a heating plant, an administration and classroom building, and a gymnasium. Plans have been drawn for men's and women's dormitories, an auditorium, and a demonstration school, all of which will be erected in the future.

Until September, 1929, all curricula were two years in length. On that date these curricula were extended to three years in conformity with new state regulations. In 1934 all curricula were expanded to four years, and the college was authorized to grant the degree of bachelor of science in education in the various fields for which it prepares teachers.

Before 1924 the curricula prepared young women for teaching only in the kindergarten and elementary grades in New Jersey public

schools. In that year the industrial arts curriculum, which prepares men to teach in the elementary, junior, and senior high schools of the state, was established. In 1932, the fine arts curriculum, which prepares men and women to teach in the elementary, junior, and senior high schools, was officially sanctioned. The curricula were initiated for the training of teachers of handicapped children in 1948, for the preparation of teachers in junior high school education in 1954, for the training of teachers in early childhood education in 1956, and for the preparation of teachers in secondary school education with majors in social science and mathematics in 1957.

In 1948 the college was empowered to grant the master of science in education degree. In 1957 the two degrees granted became the bachelor of arts and the master of arts in education, respectively.

Accreditation

Newark State College, Union, is fully accredited by the National Council for Accreditation of Teacher Education as well as by the New Jersey State Department of Education and is a member of the American Council on Education.

The College Library

Your college library operates as an instructional and research center to meet the professional needs of teachers-in-training. As such a center, it reflects a philosophy based on the belief that a teacher educational institution must centralize all curricular materials—both book and non-book—if it is to serve adequately the needs of the college.

The library maintains a collection of some 35,000 educational books and pamphlets and subscribes to some 200 periodicals and serial publications. The general collections of books and periodicals that are basic to most college libraries are enriched at Newark State College with strong collections of materials in the field of elementary education, education of the handicapped, and children's literature. In addition, the library maintains a limited selection of films, filmstrips, slides, pictures, and recordings which are available for classroom use. The appropriate equipment necessary for presenting this type of teaching material is likewise available on request from your college library and includes 16mm sound motion picture projectors, lantern slide projectors, 2" x 2" slide and filmstrip projectors, opaque projectors, tape recorders, phonographs, and transcription players.

For the convenience of the students, there is a reserve book collection which includes those books that the faculty deem important

source materials. A reference and advisory service and an audio-visual consultation and acquisition service represent some of the professional services that are maintained to assist the educational needs of the student body. For these purposes, the library is open during the college sessions from 8:00 A. M. to 9:00 P. M. on Mondays through Thursdays; 8:00 A. M. to 5:00 P. M. Fridays; and 9:00 A. M. to 12:00 noon on Saturdays. A copy of the LIBRARY RULES AND REGULATIONS pertaining to the use of the library may be obtained from the librarian.

Instruction in methods of library research is provided all freshman students by the librarian through regularly scheduled English classes. Additional instruction in specialized research techniques and in the use of instructional materials and equipment is likewise offered to scheduled classes when requested.

Dining Room and Snack Bar

The college maintains a spacious dining room for the convenience of its students and faculty. In the College Center building, snack bar service is provided throughout the day.



SECTION III

Basic Information and The Undergraduate Program

Expenses

Tuition for Residents—According to law, a tuition charge of \$150.00 is made of all students who are residents of the State of New Jersey. Half of this tuition fee is payable at the beginning of the first semester and half at the beginning of the second semester of each year. Summer session tuition is charged in addition.

Tuition for Non-Residents—Non-residents of the State of New Jersey are required to pay tuition at the rate of \$13.00 per semester point. This is payable on registration. Summer session tuition is charged in addition. In determining residence, the residence of the parent or legal guardian of the student is considered to be the residence of the student.

Application Fee—A \$5.00 non-refundable application fee is required of each applicant.

Field Experience Fee—Incoming freshman must pay a \$5.00 per semester fee for the sophomore field experience which consists of one week in the School of Conservation, Stokes State Forest. The fee will total \$20.00 by the end of the sophomore year.

Transfer Student Deposit—Transfer students are required to make a deposit in the student teaching account at the time of the transfer. The fee is \$15.00 for sophomores, \$30.00 for juniors and \$45.00 for seniors. This fee must be paid in addition to the \$7.50 per semester student teaching fee paid as a regular student after the transfer has been completed.

List of Expenses for Residents:

Tuition of seventy-five dollars per semester	\$150.00
Student Organization and Athletic Association dues of \$20.00 per semester	\$ 40.00
Service charges including registration, record photographs, publications, assembly programs, course supplies, student teaching, and health service:	
For students majoring in early childhood, general elementary, junior high school, and secondary school education—\$17.50 per semester	\$ 35.00
For industrial arts and fine arts students—\$20.00 per semester	\$ 40.00
<i>Totals per year—</i>	
For students majoring in early childhood, general elementary, junior high school, and secondary school education	\$210.00
Fine arts and industrial arts students	\$215.00

Candidates for admission are required to deposit the student service fee (non-refundable) before July 1 in order to hold a place in the freshman class the following autumn.

Tuition may be paid in full each semester or by a deferred payment plan. Other charges and dues must be paid at the beginning of each semester. Under the deferred payment plan the initial tuition payment is twenty dollars. Arrangements for deferred payments are made through the finance office and must be completed prior to the date of registration. Checks should be made payable to the Newark State College.

Each student buys his own books, which may be secured from the college book store at minimum cost. Books and materials for the first year cost about \$75.00 except for students in the Industrial Arts Curriculum. These students purchase certain items which will be used throughout the four years with a total expense for books and materials of approximately \$115.00. The estimated costs include the gymnasium costumes which all students are required to purchase.

Transcripts

One transcript of his record is furnished each student without charge. A service charge of \$1.00 is made for each additional transcript.

Withdrawals

All withdrawals from college must be handled through the office of the registrar. Procedure and regulations covering withdrawals are as follows:

1. A student withdrawing from college must obtain a withdrawal slip from the director of student personnel.
2. Tuition is charged until the withdrawal slip is recorded by the registrar.
3. The financial obligations of the student must have been met at the time of withdrawal.

Refunds

In computing refunds, the date of withdrawal is the date on which the registrar of the college receives a written notice from the student, his parents, or guardian. Refunds shall be made in accordance with the following policies, uniform in all six New Jersey State Colleges:

Periods	Per Cent Refunded	
	Tuition	Service Charges
Fall Semester		
Withdrawal before classes begin as listed in college calendar	100%	100%
Withdrawal after classes begin and before October 1	80%	80%
Withdrawal October 1-15 inclusive	60%	60%
Withdrawal October 16-November 15 inclusive	40%	40%
Withdrawal November 16 or later	None	None
Spring Semester		
Withdrawal before date classes begin as listed in college calendar	100%	100%
Withdrawal after classes begin and before February 20	80%	80%
Withdrawal February 21-March 8 inclusive	60%	60%
Withdrawal March 9-31 inclusive	40%	40%
Withdrawal April 1 or later	None	None
Summer Session and Extension		
Withdrawal before course begins	100%	100%
Withdrawal during first third of course	60%	60%
Withdrawal during middle third of course	30%	30%
Withdrawal during last third of course	None	None

Scholarships

State Scholarships—In 1937 the State Legislature passed an act (Chapter 109, P.L. 1937) creating scholarships in the six New Jersey State Teachers Colleges. These scholarships are awarded annually in accordance with the provisions of the act and the rules and regulations of the State Board of Education.

The provisions of the act follow:

1. There shall be awarded annually in the State Teachers Colleges a number of scholarships not to exceed ten per cent of the number of beginning students accepted for entrance.
2. The scholarship will exempt the student from the payment of tuition throughout the four years' course.
Note: Scholarship students are not exempt from service charges and dues.
3. Students shall be selected for scholarships in the order of excellence as determined by competitive examinations.
4. Only students who demonstrate need for financial assistance are eligible to write the competitive examinations.
5. The total number of scholarships shall be awarded by counties in the ratio that the population of the county bears to the population of the State.

Any scholarship may be withdrawn if scholastic standing is unsatisfactory. In case of withdrawal, the scholarship is transferred to another eligible student.

An applicant for admission to Newark State College, Union, who wishes to compete for a scholarship should obtain a scholarship application blank from the registrar. This application blank, with all data inserted and signatures properly affixed, must be mailed not later than two weeks prior to the date of the entrance examination.

Work Scholarship—By legislative act students demonstrating need for financial assistance may be awarded work scholarships. The number of such scholarships shall not exceed twenty-five per cent of the college enrollment, and the amount thus earned by any one student shall not exceed the amount of tuition. Applications for such scholarships shall be made to the Dean of Students.

B. Croce Educational Society Scholarship in honor of V. Libero Sibilia, Class of 1917. This scholarship of \$75.00 is awarded to a man for the sophomore, junior, or senior year who has evidenced qualities of leadership and has maintained a satisfactory academic record. The award is made upon the recommendation of the Scholarship Committee of the College.

Martha Mangold Memorial Scholarship—This scholarship of \$100.00 is awarded on the basis of professional promise to a student in the Curriculum for Teachers of Handicapped Children. The award is made upon the recommendation of the Scholarship Committee of the College.

Teresa F. Fitzpatrick Memorial Scholarship—This scholarship of \$100.00 is awarded by the Newark Branch of the Association for Childhood Education to a member of the junior class who has evidenced good scholarship and unusual interest in service to others. The recipient must be a member of the Association for Childhood Education and a graduate of a Newark elementary, junior high or senior high school, or a Newark resident. The award is made upon the recommendation of the Scholarship Committee of the College.

Scholarship of the Business and Professional Women's Club of Newark—This scholarship of \$150.00 a year is awarded to a young woman for her second, third, or fourth year. The scholarship is granted on the basis of professional promise upon the recommendation of the Scholarship Committee of the College.

Lloyd N. Yepson Memorial Scholarships—Two scholarships of \$125.00 each are awarded to students preparing to teach mentally retarded children. They are granted on the basis of professional promise upon the recommendation of the Scholarship Committee of the College.

Scholarships of the New Jersey Association for Retarded Children, Bergen and Passaic Unit—This Association awards the sum of \$250.00 either to be granted to one student or divided between two students preparing to teach mentally retarded children. The award is made on

the basis of professional promise upon the recommendation of the Scholarship Committee. Preference is given to students expecting to teach in the Bergen-Passaic area.

New Jersey Bell Telephone Scholarships—Two scholarships of \$300.00 each are awarded on the basis of professional promise, upon the recommendation of the Scholarship Committee of the College.

Nathan T. Schreiber Scholarship—This scholarship of \$75.00 is awarded on the basis of professional promise to a student in the Curriculum for Teachers of Handicapped Children. The award is made upon the recommendation of the Scholarship Committee of the College.

Scholarship of the N. J. Association for Retarded Children, Morris Unit—This Association awards the sum of \$250.00 either to be granted to one student or divided between two students entering their senior year, who are preparing to teach mentally retarded children. The award is made on the basis of professional promise.

Scholarship of the Sorority-Fraternity Council—This scholarship of \$150.00 is awarded for the senior year to one student or divided between two students who stand in the upper half of their class, who have contributed to college activities, and who have not previously held a scholarship. The recipient or recipients need not be members of a sorority or fraternity.

Scholarship of the Ocean County Unit of the New Jersey Association for Retarded Children—This scholarship of \$150.00 a year for four years is awarded to a resident of Ocean County or graduate of an Ocean County High School, who intends to major in the teaching of retarded children. Letters of application should be addressed to the Director of Admissions not later than March 31st. The recipient is selected from among those who apply.

Community Scholarships—A number of students hold scholarships awarded by civic groups and other interested organizations. Included among the donors are community education associations, service organizations, and foundations.

Memorial Loan Fund—This endowment fund, in the names of Helen Craft, Lillian Hetheron, Robert McKenna, and Donald Walsh, is set up to provide loans to students for college expenses.

Regulations governing loans are as follows:

1. Application must be submitted by the student for consideration by the Student Loan Committee, consisting of the president, the dean, the dean of students and the dean of men, all serving ex-officio.

2. Only full-time resident students shall be eligible for loans from this fund.
3. The minimum amount of loan shall be \$25.00.
4. The purpose of each loan shall be to give the student financial assistance which is directly or indirectly related to his education.
5. Applications will be considered in the light of:
 - a. Financial need of the student
 - b. Professional promise of the student
 - c. Financial plans for repayment
 - d. Availability of funds
6. Approved loans shall carry service charges for each year or portion thereof, payable in advance, as follows:
 - a. \$1.00 for loans of \$50.00 or less
 - b. \$2.00 for loans of \$51.00 to \$100.00
 - c. \$4.00 for loans over \$100.00
7. Loans shall be repaid at the rate of at least \$10.00 monthly, payments beginning October 1 following graduation or withdrawal from college, with payments made on the first of each month, thereafter, with the exception of August 1 and September 1. The complete loan is to be repaid within one year of leaving college unless otherwise stipulated by the Student Loan Committee.

Student Loan Fund of the Bergen County Council of Parent-Teacher Associations—This loan fund is open to any student who has completed one semester in a New Jersey State College and who is a graduate of a Bergen County High School in which there is a Congress Unit in membership with the County Council.

Procedure for Applicants

Applicants for entrance are directed to communicate by letter with the Director of Admissions requesting an application blank. All blanks should be properly filled in and returned to the registrar promptly. Arrangements for personal interviews with faculty members of the college will be made after the proper supporting records have been received. Applications must be on file before applicants are notified of the date of their interview and entrance examinations.

Conditions for Entrance

Conditions for entrance to the freshman class of Newark State College are in accordance with the current rules of the State Board of Education. In recent years it has become increasingly important to take the earliest possible examination in order to assure one's place in the entering class.

Entrance Examinations. Freshman enter the Newark State College at the beginning of the fall semester. All applicants for admission to the freshman class shall take examinations prepared under the direction of the Commissioner of Education. These examinations shall be inspected by the Board's Committee on Teachers Colleges which shall report

to the Board its recommendations or comments concerning the nature and standards of such examinations, which nature and standards shall be subject to the approval of the Board. Entrance examinations will be given in the latter part of March. Information concerning the exact date will be sent upon request. It may also be obtained from the applicant's high school principal and guidance director early in his senior year.

Eligibility for Taking Entrance Examination. Applicants shall be at least fifteen years, nine months old. A certificate of birth may be required. The following credentials shall be forwarded to the Director of Admissions prior to the entrance examinations:

1. Health report. A report from the family physician concerning the student's condition of health. This report shall be made on a form furnished by the registrar.
2. High school personality rating. A rating of the student's personality and probable fitness to succeed in college courses. This rating shall be made by the officials of the applicant's secondary school on a form furnished by the registrar.
3. Certificate of graduation. A certificate showing graduation from twelfth grade of an approved secondary school or a certificate showing that the applicant is scheduled for graduation during the current scholastic year. This certification shall name the secondary school subjects which the applicant has completed and in which he is enrolled, the number of weeks given to each subject, the number of class periods per week, and the scholastic standing of the applicant. The units to be accepted for admission shall be prescribed by the Commissioner of Education.

Physical Examination. All candidates must be examined by the college physician to determine whether they are free from any disease or infirmity which would render them unfit for teaching. An examination by the physician may be required of any student at any time in his course to determine whether his physical condition warrants his continuance in the college.

Transfers with Advanced Standing. Students in good standing in another New Jersey State Teachers College may transfer without examination to Newark State College, Union. No student who has been dismissed from a New Jersey State Teachers College shall be admitted to Newark State College, Union.

Applicants who have successfully completed a minimum of two semesters in an approved college and who have an honorable dismissal may be accepted with advanced credit provided that such transfer does not cause the total enrollment in any curriculum to exceed the quota established by the Commissioner of Education. Courses with content similar to those required at the Newark State College, Union, are accepted at full value provided the work is of high quality.

Transfer students will not be accepted who do not have a cumulative grade point average of at least 2.0. (To determine grade point average, see Academic Standing Page 22). Transfer credit will not be allowed for letter grades below "C".

The requirements for graduation for a student accepted by transfer are planned carefully in order to prevent duplication. The time necessary for a transfer student to complete graduation requirements will depend upon the number of courses completed before transfer. However, the minimum time is never less than two full semesters, one of which shall be the second semester of the senior year. Applicants for admission by transfer who have completed less than two full semesters in another college shall be required to take an entrance examination.

All advanced credit applicants meet the dean of the college for a personal interview. It is recommended that the following credentials be submitted to the registrar with the application: (1) A certified transcript of advanced credits and (2) a brief description of personal history data.

Admission of Non-Resident Students. Students non-resident in New Jersey who possess the qualifications required by these rules may be admitted upon approval of the president of the college, provided the quota for the desired curriculum has not been filled.

Admission of Veterans. Newark State College, Union, has been approved for the training of veterans under Public Laws 16 and 346. The Veterans Advisor is available in the Dean of Students Office.

On the day of registration the veteran must present:

1. Veterans Administration form 7-1905, Authorization and Notice of Entrance into Training, in order to be eligible for benefits under Public Law 16.

OR

2. Veterans Administration form 7-1953, Certificate of Eligibility, in order to be eligible for benefits under Public Law 346.

If such authorization is not available, the student should pay all standard charges as a non-veteran. Notify the veterans' office at the college when this occurs.

The benefits of Public Law No. 16 have been extended to persons discharged from the Armed Forces who are disabled as a result of the Korean conflict.

Under Public Law 550 (Korean War Act) this institution has been certified to train veterans for the bachelor of arts and master of arts degrees in education.

Information concerning the various phases of veterans' affairs may be secured at the college.

Any student who is eligible for Veterans Benefits under The War Orphans Act should see the Veterans Advisor.

High School Subjects Required for Admission

Applicants must present a minimum of fifteen secondary school units or their equivalent. The high school subjects required for admission are classified into three groups as follows:

1. Core prescribed subjects
The specific high school subjects which all applicants for admission must complete are

*English	4 units
*Mathematics (Any college preparatory mathematics)	1 unit
*Science (Must be a laboratory science)	1 unit
American history	2 units
2. Limited electives
The following subjects may be used as limited electives: economics, geography, history, mathematics, science, social studies, and foreign languages. No credit is given for fewer than two units in any one foreign language.
3. Free electives
Any subject completed in an approved high school may be used as a free elective.

Specific admission requirements for various curricula are as follows:

1. Early childhood education, general elementary and teachers of handicapped children, junior high school, and secondary school education

Core prescribed subjects	8 units
Limited electives	5 units
2. Industrial Arts

Core prescribed subjects	8 units
Industrial arts, including mechanical drawing	2 units
Limited electives	3 units
Free electives	3 units
Evidence of mechanical aptitude and ability to use tools.	
3. Fine Arts

Core prescribed subjects	8 units
Arts courses	2 units
Limited electives	3 units
Free electives	3 units
Evidence of special ability in drawing and color harmony.	

Approved Secondary Schools

Candidates are admitted from public or private secondary schools approved by the State Board of Education. In case of doubt as to the accreditation of any secondary school, the candidate should ascertain from the registrar the status of the secondary school from which he is graduated or expects to be graduated.

* Students deficient in these courses must make up the deficiency by enrolling in non-credit courses before full admission is granted.

Scholarship and Attainment Standards

Care is exercised to insure high scholarship standards. Selective procedures are designed to admit only those who may with credit to themselves and the college undertake the program of studies. Encouragement for superior work is provided through the announcement each year of the honors group or dean's list. The status of the college as a fully accredited member of the American Association of Teachers Colleges requires that caution be exercised in retaining any student who falls below the accepted academic standards.

Academic Standing

The academic standing of a student in every subject is reported at the end of each semester by a letter grade:

- A — Excellent
 - B — Good
 - C — Fair
 - D — Poor
 - F — Failure
 - Inc — Incomplete Work
 - WP — Withdrawn, Passing
 - WF — Withdraw, Failing
- The "F" grade carries no credit.

The "Inc" mark must be removed within 8 weeks after the beginning of the following semester unless otherwise indicated by the instructor, or the grade automatically becomes an "F".

Any student missing a mid-semester or final examination must make arrangements with the instructor for late examination within one week of returning to classes. A fee of \$2.00 is charged for each late examination.

Comprehensive evaluation of the student's academic standing is indicated in his grade point average. The numerical equivalents for determining grade point average follow:

A-4; B-3; C-2; D-1; F-0

Students must maintain cumulative grade point averages as follows:

For sophomore standing, the student must have completed at least 26 credit hours with a 1.6 average; for junior standing, 58 credit hours with a 1.8 average; for senior standing, 90 hours with a 2.0 average; for graduation, 124-128 hours with a 2.0 average. The grade point average is determined by dividing the total grade points earned by the total number of semester hours, whether passed or failed.

A student who receives "D" or "F" in 30% of his work is placed on probation.

The President of the College may dismiss a student whose conduct is detrimental to the College or whose scholarship record is unsatisfactory.

When a student is placed on probation or dismissed, he is notified through a personal interview and a confirming letter. A copy of the confirming letter is sent to the parents of freshmen.

Students graduating with point average of 3.45 or better for all undergraduate courses completed at the college are recognized as honor students with the following designations:

Average of 3.45 — 3.64	Cum laude
Average of 3.65 — 3.84	Magna cum laude
Average of 3.85 — 4.0	Summa cum laude

STUDENT PERSONNEL SERVICES

In Section 1 of this catalogue "About the College and You," reference was made to the "best teacher you ever had." Invariably when one analyzes the reasons a teacher is "the best", personal qualities top the list. In other words, although a good professional education is essential, it is the teacher's personality that marks him as outstanding. Through its student personnel program the college endeavors to select young people who will grow into good teachers and to provide varied opportunities for their personal growth.

Selection

Care is exercised in the selection of students to determine whether they have the qualities and capacities demanded by the high standards of the teaching profession. Each applicant is interviewed prior to acceptance. Interviews are held on an Interviewing Day in March. With sophomores serving as guides and hosts and hostesses, the candidates find the day a very pleasant one. School officials and parents of applicants are asked to cooperate in arranging the appointments for these interviews which are an essential part of the application. Selection is a continuing process throughout the four years of college with periodic reappraisal of the student's fitness for teaching.

Orientation

The period of adjustment from high school to college can be a very trying one for students. The college, in a variety of ways, helps the student make the adjustments so that he may start this new ex-

perience with a sense of security in his newly found college world. The pre-entrance interview provides the first step in orientation, for it brings the student to the college during the winter preceding his admission and gives him an opportunity to meet several members of the faculty and student body and to learn about the college program. The counseling service also performs an important orientation function, not only through the direct help given the new student by the counselor but also through contacts with the upperclassmen in the counseling group.

The more formal orientation program begins with a two-day period preceding the beginning of classes when the freshmen and a group of sophomores and upperclassmen are together on the campus. During these two days, the freshmen register, take certain inventories and tests for guidance purposes, meet their faculty counselors, and begin to get acquainted through social experiences.

This is followed by a series of meetings of the freshmen in small groups, once a week for nine weeks. These informal discussion periods give the new students some understanding of the college program, including the curriculum, the social and club activities, and the special counseling services available.

As part of the orientation program, the freshmen have a short course in grooming and social usage. This is in keeping with the philosophy of the college that teachers should be attractive, interesting persons, and that it is the function of the college to help its students grow socially as well as academically.

Counseling

Each student, upon entrance, is assigned to a faculty counselor who serves as that student's adviser for the entire college experience. Every effort is made by the counselor, through interviews and informal social contacts, to become so well acquainted with his counselees that they will feel free to come to him for help when needed. New counselees are assigned to the counselor each year. Thus each counselor has within his counseling group students on all four class levels, with a total of about twenty students. This comparatively small number of counselees makes it possible for adviser and student really to know each other. Basic to the counseling service is the philosophy that students should become self-directive in the solving of their problems, not that someone else should do the solving for them. It is the role of the counselor to help the student identify his problems and to approach his solution constructively. Most students, of course, do not encounter

major problems. For them the counselor can be a faculty friend, always interested in their progress.

Available to students and counselors are several special counseling services. A consultant psychiatrist and a physician are part-time members of the staff. Full-time members include a psychologist, a health counselor, and a speech specialist. Students may go to these specialists voluntarily or may be referred through their faculty counselors.

Health Service

The physical well-being of a person who enters the profession of teaching is so important that a thorough health examination by the student's family physician is required prior to entrance. Subsequent health examinations will be made by the college physician.

The health service includes a follow-up by physician and health counselor, of any necessary corrective measures. Periodic health examinations with vision and audiometric tests are provided. Contacts with clinics and hospitals are arranged through the health service when necessary. In accordance with the ruling of the State Board of Education, each student is given an annual X-ray examination.

The student at all times is encouraged to assume the responsibility for the promotion of his own health.

Students' Medical Reimbursement Insurance

Medical reimbursement insurance, available on an optional basis, protects the student from the expense of the more costly illnesses and injuries requiring hospital care, surgical treatment, X-ray examination or consultants' services. The cost is \$13.50 a year, payable at registration. The insurance is underwritten by the Mutual Benefit Health and Accident Association, through Higham, Neilson, Whitridge, and Read, Incorporated, of Philadelphia.

Records

A cumulative personnel record kept for each student provides a growing account of his development throughout the four years of college. In order to help the student understand his own assets and liabilities, student inventories are administered each fall to all new students. The results of these tests are interpreted to each student and become part of his cumulative record.

Placement

Placement of graduates is facilitated by a comprehensive set of records which reveal special aptitudes and abilities and outstanding contributions to the student life of the college, as well as to his academic proficiency. Every effort is made to place the graduate in the position for which he or she is best suited.

Follow-Up

During the initial teaching experience the college endeavors to cooperate with employing authorities in continuing its advisory function.

Student Activities

In order that students may have the opportunity to achieve the personal development so essential for teaching, the college offers a variety of experiences designed to assist them in developing their interests and abilities, in having social experiences, and in developing lasting friendships which are so important a part of college life.

The College Center is a building of great contemporary beauty and is devoted to the proud service of providing a "living room" for the campus. It contains comfortable lounges, recreation rooms, student publications workrooms and offices, small meeting and dining rooms, and space for art and work demonstrations. A special room provides a snack-bar for informal socializing and light foods. A fine little theatre is the center of much student and faculty activity. Debates, lecture series, plays, concerts, films, and other cultural and educational events take place here in an atmosphere of a friendly and informal spirit. A well-equipped bookstore is maintained for the college and is designed to meet student needs at minimum expense.

Many opportunities are given to students in the direction and use of this Center. It is governed by a Board of Directors composed of students and faculty, and the expression of students' needs and desires is the work of all concerned.

Within the College Center is a spacious dining room adjoining a most modern and complete cafeteria service. The dining room itself commands a wide view of the campus and is the scene of friendly gatherings at well-served meals. The kitchens are of the most efficient design and are planned to assure the campus family of the best of service. A competent staff provides excellent food and often aids in the preparation of special foods for group and class functions.

The Student Organization

Every student upon entrance automatically becomes a member of the Student Organization. Legislative and executive powers of the Student Organization are vested in the Student Council, whose membership is made up of class representatives.

Clubs

Through a diversified program of clubs, many avenues for widening horizons are provided. The clubs are actual expressions of the students' own interests. When a desire for a club in some new area is apparent, the club is formed and funds from the Student Organization are made available for its support. Student activities include *Memorabilia*, the college yearbook; the *Reflector*, the college newspaper; the Norms Theatre Guild; the Dance Study Club; Nu Lambda Kappa, a creative writing club; the College Forum; the Camera Club; the Women's Glee Club; the Hi-Lows and the Orchestra; the Collegiate Council for the United Nations; Wapalanne Club for those interested in camping and hiking; and the Future Teachers of America and Association for Childhood Education.

Sports

The Athletic Association has general charge of the inter-collegiate and intra-mural sports of the college. Inter-collegiate schedules are provided in basketball and baseball; and intra-mural programs include basketball, badminton, archery, deck tennis, soft ball, volleyball, shuffleboard and bowling. Throughout the sports program, the emphasis is on widespread participation for the good of all students, as well as on the building of a varsity program. It is wholesome for every teacher to have a sports hobby, and many of the sports which students enjoy in college can provide recreational interest later in life.

Social Program

The social program offers opportunity for development in still another direction. By participating in class and club and all-college parties, the students grow in social competence. The counseling groups, too, may offer opportunities for learning what to do in social situations and how to plan and carry through certain types of social activities. This is particularly important in the education of prospective teachers who will, almost without exception, be called on later to help with such affairs in their own teaching situations.

Honorary Educational Societies

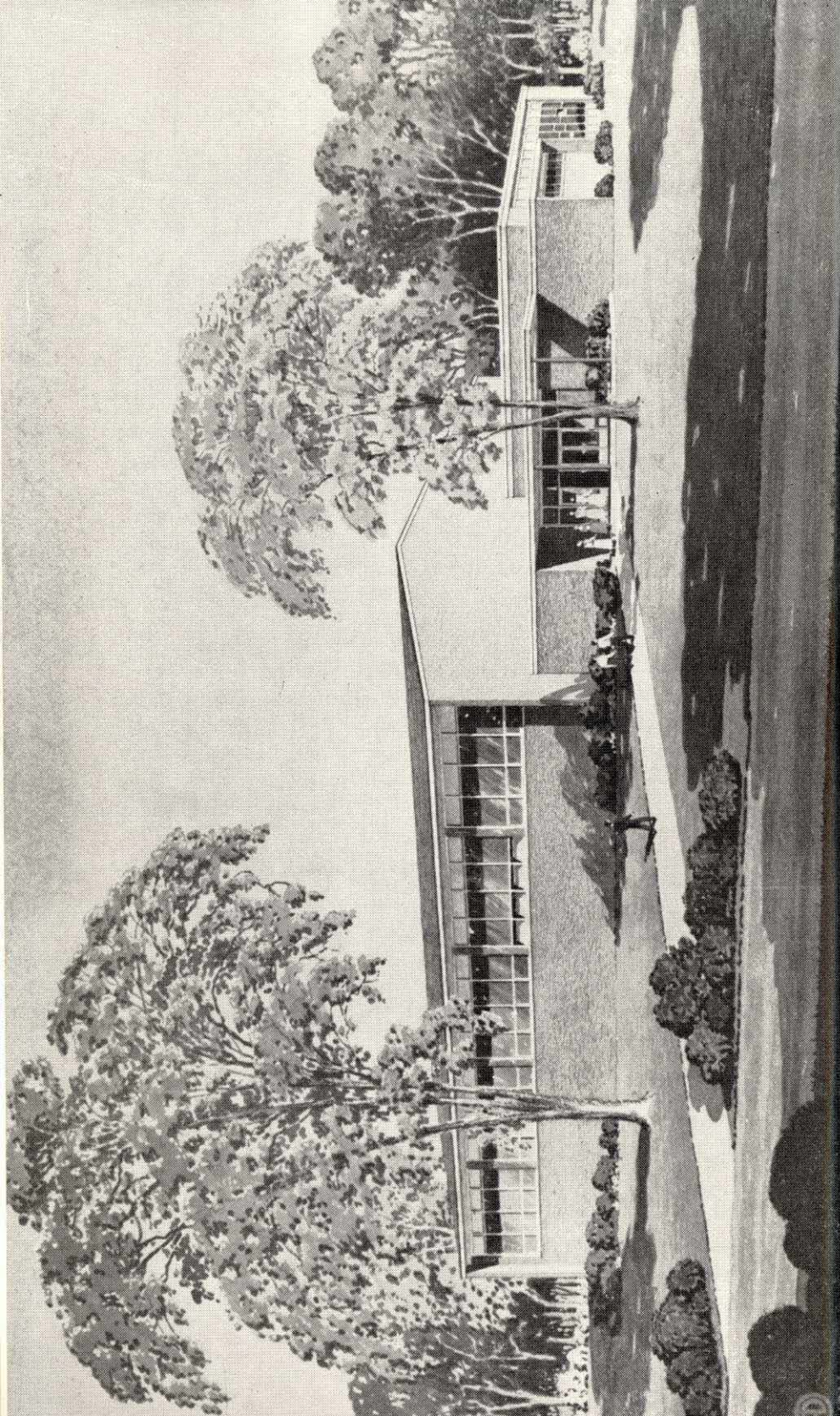
Epsilon Pi Tau. The Newark State College Chapter of Epsilon Pi Tau, a national honorary fraternity, open to ranking members of the undergraduate body pursuing an industrial arts major, was established in December, 1936. This honorary industrial arts fraternity is open also to high ranking graduates in this field. The purpose of the fraternity is to encourage high professional standards, scholarship, and professional ability in industrial arts and to promote research.

Kappa Delta Pi. Delta Rho Chapter of Kappa Delta Pi is an honor society in education open to ranking members of the junior and senior classes of all curricula. Alumni of the college may also become eligible for membership subsequent to graduation, upon meeting the requirements of the society. The purpose of the society is to promote scholarly attainment and professional leadership in education. Delta Rho Chapter was established at the college in 1938.

The Alumni Association

Any graduate of Newark State Normal School or Newark State Teachers College is eligible for membership in the Alumni Association. By decision of the student body in 1950, all resident students automatically become Associate Members through payment each semester of the Student Activity fee, a portion of which is contributed to the Alumni Association.

To carry out its primary function as the official two-way communication agent between the college and its graduates, the Association promotes various social and professional activities, including quarterly publications of a bulletin, the Newark Stater. The Association maintains an office in the College Center Building. Any information about alumni should be sent to that office. Any requests for information concerning alumni should be directed to the Executive Secretary.



SECTION IV

Curricula of the College and Description of Courses

The curricula are organized so that the student's work is a blend of general education and specialized or professional education. These two elements permeate the four years of college, with general education receiving the major emphasis during the earlier years and professional education during the latter years.

To provide a core of general education, the curricula of the various special fields require in their major work comparable areas of general education. There is also a common core of basic professional courses—those areas in which all teachers should be well grounded. In addition to these two elements of the curricula, specialized professional courses and professionalized subject matter courses are added to suit the needs of each curriculum.

Specific Curricula

The college offers seven professional curricula, all of which lead to the degree of bachelor of arts in education.

The early childhood education curriculum prepares students to teach in the nursery school, kindergarten, and in grades one through three, inclusive.

The general elementary curriculum prepares students to teach in any elementary school of the state in grades one through eight, inclusive.

The curriculum for teachers of handicapped children prepares for teaching in the elementary grades; also for teaching the mentally retarded, speech defective, orthopedically handicapped, partially seeing, or hard of hearing.

The junior high school curriculum prepares students to teach in New Jersey junior high schools in the areas in which they have attained specific competencies. At present, the areas offered at Newark State College include English, mathematics, social science, and science.

The secondary school curriculum at the present time prepares students to teach social science and mathematics in the senior high schools of New Jersey. Majors in English and science will be offered to students in the near future.

The fine arts curriculum prepares for the teaching of fine arts in the elementary schools and in junior and senior high schools of New Jersey.

The industrial arts curriculum prepares for the teaching of industrial arts in the elementary schools and in the junior and senior high schools of the State.

Graduate Curriculum

A graduate program for the preparation of master teachers and administrators in elementary education is culminated by the awarding of the degree of master of arts in education. The areas of specialization in which students may major are special education, administration and supervision, early childhood education, and general elementary education.

Degree Requirement

Candidates for the bachelor of arts in education degree are required to complete the following number of semester hours of work as are prescribed for the specific curriculum in which the student is enrolled: early childhood education, 128 semester hours; general elementary, including teachers of handicapped children, 128 semester hours; junior high school, 133-138 semester hours; and secondary education, 128 semester hours.

At least two semesters of resident work must be completed at this college.

State Certificates and Degrees

All professional curricula at Newark State College, Union, lead to the degree of bachelor of arts in education. The degree is issued under the authority of the State Board of Education and is prerequisite to the granting of certificates to teach in the State.

The master of arts degree in education is awarded upon the completion of the graduate curriculum in a specific major field. At least half of the master's work must be completed in residence, which can be established by full attendance at two summer sessions.

Limited teachers college certificates, appropriate to each of the curricula listed above, are granted by the State to a student upon graduation from the college. Each certificate entitles the holder to teach in any of the grades and subjects covered by the curriculum in which he has been prepared.

All limited certificates as issued at present are valid for five years. After three years of successful teaching experience, a teacher may receive his permanent certificate upon recommendation of the president of the college.

PRACTICUM

Throughout the third year, the college courses are integrated with field study and participation in the public schools. Classroom instruction is planned to make the field study more meaningful, and the field study, in turn, vitalizes intramural learning.

The practicum provides for the gradual induction of students into teaching as a profession. Selected public and private school systems, offering a variety of practical working conditions, have agreed to provide nursery, kindergarten, elementary, junior and senior high schools as centers in which students may observe and participate.

Senior high school situations also are provided for fine arts and industrial arts students as well as for those majoring in secondary education.

Each student visits various classes in one of these centers and spends his entire time in a classroom at the center during one quarter. In this way an opportunity is given each junior student to build by gradual stages a working participation in the regular daily program of a public school classroom.

The first-hand experience of the practicum provides for:

1. Realistic knowledge of the teacher's work in the public schools.
2. Direct knowledge of children and young people as they actually live, play, and work.
3. Awareness of the normal gradations of capacity of children and young people through the nursery, kindergarten, elementary, junior, and senior school age levels.
4. Acquaintance with the parental and community relationships of the school.
5. A background of organization and administration of public elementary, junior high, and secondary schools.

EARLY CHILDHOOD EDUCATION

Freshman

FIRST SEMESTER	Per.	Sem. Hours	SECOND SEMESTER	Per.	Sem. Hours
Ed. 103—Development of Educational Thought	3	3	Ed. 104—Human Development and Behavior I	3	3
Eng. 101—Fundamentals of Communication	3	3	Eng. 102—Fundamentals of Communication	3	3
Health Ed. 101—Physical and Mental Health	2	2	Health Ed. 102—Physical and Mental Health	2	2
Math. 103—General Mathematics	2	2	Math. 104—Descriptive Statistics	2	2
Ph. Ed. 101—Organized Recreation	2	1	Ph. Ed. 102—Organized Recreation	2	2
Sci. 101—Introduction to Biology	3	2	Sci. 102—Introduction to Biology	3	2
Soc. Sci. 103—History of Western Civilization	3	3	Soc. Sci. 104—History of Western Civilization	3	3
		16			16

Sophomore

FIRST SEMESTER	Per.	Sem. Hours	SECOND SEMESTER	Per.	Sem. Hours
Ed. 203—Human Development and Behavior II	3	3	Ed. 204—Philosophy	3	3
Eng. 205—World Literature	3	3	Ed. 251—Introduction to Education of the Handicapped	2	2
F. A. 211—Experiencing Art	3	3	Eng. 224—Children's Literature in Early Childhood Education	2	2
Music 201—Fundamentals of Music	2	2	F. A. 212—Experiencing Art	3	3
Ph. Ed. 201—Rhythmical Recreation	2	1	Music 202—Fundamentals of Music	2	2
Sci. 203—Introductory Chemistry or	3	2	Ph. Ed. 202—Rhythmic Recreation	2	1
Sci. 205—Introductory Physics or	3	2	Sci. 204—Introductory Chemistry or	3	2
Sci. 207—Earth Science	2	2	Sci. 206—Introductory Physics or	3	2
Soc. Sci. 203—United States History	3	3	Sci. 208—Earth Science	2	2
		17	Soc. Sci. 204—United States History	3	3
					18

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Junior

FIRST SEMESTER	Per.	Sem. Hours	SECOND SEMESTER	Per.	Sem. Hours
Ed. 305—Junior Practicum	—	0	Ed. 304—Educational Psychology	3	3
Ed. 323—Child Development and the Early Childhood Curriculum, I	6	6	Ed. 306—Junior Practicum	—	0
Eng. 321—Language Arts in Early Childhood Education	5	5	Ed. 324—Child Development and the Early Childhood Curriculum, II	5	5
Music 321—Music in Early Childhood Education I	2	2	Soc. Sci. 316—Principles and Fundamentals of Geography	2	2
		13			10

Senior

FIRST SEMESTER	Per.	Sem. Hours	SECOND SEMESTER	Per.	Sem. Hours
Ed. 403—Student Teaching	—	4	Ed. 404—Student Teaching	—	4
Ed. 409—Comparative Education	3	3	Eng. 404—Contemporary Literature	2	2
		7	Music 402—Music Appreciation	3	3
			Ed. 424—Parent-Teacher-Child Relations in Early Childhood Education	2	2
					11

Students majoring in early childhood education have 20 semester hours of electives.
Twelve of these semester hours are free electives. The other eight semester hours of
electives must be selected from the following:

Per.	Sem. Hours	Per.	Sem. Hours
2	2	2	2
2	2	2	2
2	2	2	2
2	2	2	2
2	2	2	2
2	2	2	2
2	2	2	2
2	2	2	2
2	2	2	2
2	2	2	2
2	2	2	2

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GENERAL ELEMENTARY EDUCATION

Freshman

FIRST SEMESTER			SECOND SEMESTER		
	Per.	Sem. Hours		Per.	Sem. Hours
Ed. 103—Development of Educational Thought	3	3	Ed. 104—Human Development and Behavior I	3	3
Eng. 101—Fundamentals of Communication	3	3	Eng. 102—Fundamentals of Communication	3	3
Health Ed. 101—Physical and Mental Health	2	2	Health Ed. 102—Physical and Mental Health	2	2
Math. 103—General Mathematics	2	2	Math. 104—Descriptive Statistics	2	2
Ph. Ed. 101—Organized Recreation	2	1	Ph. Ed. 102 Organized Recreation	2	1
Sci. 101—Introduction to Biology	3	2	Sci. 102—Introduction to Biology	3	2
Soc. Sci. 103—History of Western Civilization	3	3	Soc. Sci. 104—History of Western Civilization	3	3
		16			16

Sophomore

FIRST SEMESTER			SECOND SEMESTER		
	Per.	Sem. Hours		Per.	Sem. Hours
Ed. 203—Human Development and Behavior II	3	3	Ed. 204—Philosophy	3	3
Eng. 205—World Literature	3	3	Ed. 251—Introduction to Education of the Handicapped	2	2
F. A. 211—Experiencing Art	3	3	F. A. 212—Experiencing Art	3	3
Music 201—Fundamentals of Music	2	2	Music 202—Fundamentals of Music	2	2
Ph. Ed. 201—Rhythmical Recreation (women)	2	1	Ph. Ed. 202—Rhythmical Recreation (women)	2	1
Ph. Ed. 201—Organized Recreation (men)	2	1	Ph. Ed. 202—Organized Recreation (men)	2	1
Sci. 203—Introductory Chemistry or	3	2	Sci. 204—Introductory Chemistry or	3	2
Sci. 205—Introductory Physics or	3	2	Sci. 206—Introductory Physics or	3	2
Sci. 207—Earth Science	2	2	Sci. 208—Earth Science	2	2
Soc. Sci. 203—United States History	3	3	Soc. Sci. 204—United States History	3	3
		17			16

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Junior

FIRST SEMESTER			SECOND SEMESTER		
	Per.	Sem. Hours		Per.	Sem. Hours
Ed. 305—Junior Practicum	—	0	Ed. 304—Educational Psychology	3	3
Ed. 313—Elementary Curriculum I	5	5	Ed. 306—Junior Practicum	—	0
F. A. 312—Art in Education	2	2	Ed. 314—Elementary Curriculum II	5	5
Music 311—Music in the Elementary School	2	2	Eng. 315—English Language Arts in the Elementary School	4	4
Ph. Ed. 311—Physical Education in the Elementary School	2	2	Soc. Sci. 316—Principles and Fundamentals of Geography	2	2
Sci. 311—Science in the Elementary School	3	3			14
		14			

Senior

FIRST SEMESTER			SECOND SEMESTER		
	Per.	Sem. Hours		Per.	Sem. Hours
Ed. 401—Classroom Applications of Mental Hygiene	2	2	Ed. 404—Student Teaching	—	4
Ed. 403—Student Teaching	—	4	Eng. 404—Contemporary Literature	2	2
Ed. 409—Comparative Education	3	3	Music 402—Music Appreciation	3	3
Math. 312—Arithmetic in the Elementary School	3	3	Soc. Sci. 414—New Jersey Geography, History and Government	2	2
		12			11

The above total 116 semester hours. Elementary education majors are to select 12 semester hours of free electives to make a grand total of 128 semester hours.

TEACHERS OF HANDICAPPED CHILDREN

Junior

The curricular offerings for these majors for the first two years are the same as those for the general elementary education majors.

FIRST SEMESTER			SECOND SEMESTER		
	Per.	Sem. Hours		Per.	Sem. Hours
Ed. 305—Junior Practicum	—	0	Ed. 304—Educational Psychology	3	3
Ed. 313—Elementary Curriculum I	5	5	Ed. 306—Junior Practicum	—	0
F. A. 312—Art in Education	2	2	Ed. 314—Elementary Curriculum II	5	5
Ph. Ed. 311—Physical Education in the Elementary School	2	2	Eng. 315—Language Arts in the Elementary School	4	4
Sci. 311—Science in the Elementary School	3	3	Mus. 311—Music in the Elementary School	2	2
Soc. Sci. 316—Principles and Fundamentals of Geography	2	2			14
		—			
		14			

Each student preparing to teach handicapped children will specialize for teaching a particular type of handicapped child by completing the course in one of the following groups, continuing in the same group through the junior and senior years.

Group I Courses for teachers of children who are mentally retarded.

F. A. 551—Arts and Crafts for Mentally Retarded 4½ 3
Group II Courses for teachers of children who have speech disorders.

Sci. 551—Anatomy and Physiology of the Ear and Speech Mechanism 2 2

Group III Courses for teachers of children who are hard of hearing.

Sci. 551—Anatomy and Physiology of the Ear and Speech Mechanism 2 2

Group I Courses for teachers of children who are mentally retarded.

Ed. 550—Orientation in Psychological Testing 2 2
 Ed. 552—Curriculum Building for Different Maturation Levels of the Mentally Retarded 3 3

Groups II and III Courses for teachers of children who have speech disorders and Courses for teachers of children who are hard of hearing.

Ed. 556—Speech Pathology 3 3
 Ed. 553—Phonetics 2 2

Senior

FIRST SEMESTER			SECOND SEMESTER		
	Per.	Sem. Hours		Per.	Sem. Hours
Ed. 401—Classroom Application of Mental Hygiene	2	2	Ed. 404—Student Teaching	—	4
Ed. 403—Student Teaching	—	4	Eng. 404—Contemporary Literature	2	2
Ed. 409—Comparative Education	3	3	Music. 402—Music Appreciation	3	3
Math. 312—Arithmetic in Elementary School	3	3			9
		—			
		12			

Students majoring in the education of the handicapped are to elect the courses necessary to make a total of 128 semester hours required for graduation.

Group I Courses for teachers of children who are mentally retarded.

Ed. 555—Materials, Methods, and Programs for the Mentally Retarded 3 3

Group II Courses for teachers of children who have speech disorders.

Ed. 559—Audiometric Testing and Hearing Aids 2 2
 Ed. 557—Speech Clinic I 2 2

Group III Courses for teachers of children who are hard of hearing.

Ed. 559—Audiometric Testing and Hearing Aids 2 2
 Ed. 5502—Lip Reading (Speech Reading) 2 2

Group I Courses for teachers of children who are mentally retarded.

Ed. 554—Reading Disabilities 2 2

Group II Courses for teachers of children who have speech disorders.

Ed. 558—Speech Clinic II 2 2

Group III Courses for teachers of children who are hard of hearing.

Ed. 5501—Methods of Teaching the Hard of Hearing 3 3

JUNIOR HIGH SCHOOL MAJORS WITH COMPETENCIES IN ENGLISH, MATHEMATICS, SCIENCE, AND SOCIAL SCIENCE

Freshman

FIRST SEMESTER			SECOND SEMESTER		
	Per.	Sem. Hours		Per.	Sem. Hours
Ed. 103—Development of Educational Thought	3	3	Ed. 104—Human Development and Behavior I	3	3
Eng. 101—Fundamentals of Communication	3	3	Eng. 102—Fundamentals of Communication	3	3
Health Ed. 101—Physical and Mental Health	2	2	Health Ed. 102—Physical and Mental Health	2	2
Math. 161—Basic Mathematics	3	3	Math. 104—Descriptive Statistics or	2	2
Ph. Ed. 101—Organized Recreation	2	1	Math. 162—Descriptive and Inductive Statistics (Mathematics Competency)	3	3
Sci. 101—Introduction to Biology or	3	2	Ph. Ed. 102—Organized Recreation	2	1
Sci. 161—Fundamentals of Biological Science (Science Competency)	4	3	Sci. 102—Introduction to Biology or	3	2
Soc. Sci. 103—History of Western Civilization	3	3	Sci. 162—Fundamentals of Biological Science (Science Competency)	4	3
			Soc. Sci. 104—History of Western Civilization	3	3

Sophomore

FIRST SEMESTER			SECOND SEMESTER		
	Per.	Sem. Hours		Per.	Sem. Hours
Ed. 203—Human Development and Behavior II	3	3	Ed. 251—Introduction to the Education of the Handicapped	2	2
Eng. 205—World Literature	3	3	Eng. 266—World Literature	3	3
F. A. 261—Fine and Industrial Arts	3	3	F. A. 262—Fine and Industrial Arts	3	3
Math. 261—Mathematics Analysis I	4	4	Math. 262—Mathematical Analysis II (Mathematical Competency)	4	4
Music 201—Fundamentals of Music	2	2	Music 202—Fundamentals of Music	2	2
Ph. Ed. 201—Rhythmic Recreation	2	1	Ph. Ed. 202—Rhythmic Recreation	2	1
Sci. 203 Introductory Chemistry or	3	2	Sci. 204—Introductory Chemistry or	3	2
Sci. 205—Introductory Physics or	3	2	Sci. 206—Introductory Physics or	3	2
Sci. 207—Earth Science or	2	2	Sci. 208—Earth Science or	2	2
Sci. 261—Fundamentals of Physical Science (Science Competency)	4	3	Sci. 262—Fundamentals of Physical Science (Science Competency)	4	3
Soc. Sci. 203—United States History	3	3	Soc. Sci. 204—United States History	3	3

Junior

FIRST SEMESTER			SECOND SEMESTER		
	Per.	Sem. Hours		Per.	Sem. Hours
Ed. 305—Junior Practicum	—	0	Ed. 306—Junior Practicum	—	0
Ed. 361—Educational Programs for Pre-Adolescents and Adolescents I	3	3	Ed. 362—Educational Programs for Pre-Adolescents and Adolescents II	3	3
Ed. 551—Speech Correction	2	2	Eng. 362—Foundations of Language (English Competency)	3	3
Eng. 361—Language Arts for Adolescents (English Competency)	3	3	Math. 312—Arithmetic in the Elementary School (Mathematics Competency)	3	3
Math. 371—Field and Laboratory Mathematics	3	3	Sci. 362—General Chemistry (Science Competency)	4	3
Sci. 361—General Chemistry (Science Competency)	4	3	Soc. Sci. 362—History and Social Science in Grades V-IX (Social Science Competency)	3	3
Soc. Sci. 371—Principles of Sociology	3	3	Soc. Sci. 366—Fundamentals of Geography	3	3

Senior

FIRST SEMESTER			SECOND SEMESTER		
	Per.	Sem. Hours		Per.	Sem. Hours
Ed. 401—Classroom Applications of Mental Hygiene	2	2	Ed. 204—Philosophy	3	3
Ed. 403—Student Teaching	—	4	Ed. 404—Student Teaching	—	4
Ed. 461—Junior High School Programs	3	3	Eng. 461—Contemporary Literature	3	3
Eng. 463—American Literature (English Competency)	3	3	Eng. 462—Critical Approaches to Literature (English Competency)	3	3
Math. 462—Junior High School Mathematics (Mathematics Competency)	3	3	Music 412—Music Appreciation (Social Science Competency)	3	3
Sci. 461—Junior High School Science (Science Competency)	2	2	Sci. 464—Earth Science (Science Competency)	4	4
Soc. Sci. 413—Regional Geography of North America (Social Science Competency)	3	3	Soc. Sci. 472—Introduction to Economics (Social Science Competency)	3	3
Soc. Sci. 473—American Government and Politics	3	3			

FINE ARTS EDUCATION

Freshman

FIRST SEMESTER			SECOND SEMESTER		
	Per.	Sem. Hours		Per.	Sem. Hours
Ed. 103—Development of Educational Thought	3	3	Ed. 104—Human Development and Behavior I	3	3
Eng. 101—Fundamentals of Communication	3	3	Eng. 102—Fundamentals of Communication	3	3
F. A. 141—Design I	4½	3	F. A. 142—Design II	4½	3
F. A. 143—Crafts I	4½	3	F. A. 144—Crafts II	4½	3
Math. 103—General Mathematics	2	2	I. A. 145—Basic Industrial Arts	3	2
Sci. 101—Introduction to Biology	3	2	Math. 104—Descriptive Statistics	3	2
		—	Sci. 102—Introduction to Biology	3	2
		16			18

Sophomore

FIRST SEMESTER			SECOND SEMESTER		
	Per.	Sem. Hours		Per.	Sem. Hours
Ed. 203—Human Development and Behavior II	3	3	Ed. 204—Philosophy	3	3
F. A. 241—Painting and Drawing I	4½	3	F. A. 242—Painting and Drawing II	4½	3
F. A. 243—Art and Civilization I	2	2	F. A. 244—Art and Civilization II	2	2
Health Ed. 101—Physical and Mental Health	2	2	Health Ed. 102—Physical and Mental Health	2	2
Ph. Ed. 101—Organized Recreation	2	1	Ph. Ed. 102—Organized Recreation	2	1
Sci. 203—Introductory Chemistry or	3	2	Sci. 204—Introductory Chemistry or	3	2
Sci. 205—Introductory Physics or	3	2	Sci. 206—Introductory Physics or	3	2
Sci. 207—Earth Science	2	2	Sci. 208—Earth Science	2	2
Soc. Sci. 103—History of Western Civilization	3	3	Soc. Sci. 104—History of Western Civilization	3	3
		—			—
		16			16

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Junior

FIRST SEMESTER			SECOND SEMESTER		
	Per.	Sem. Hours		Per.	Sem. Hours
Ed. 305—Junior Practicum	—	0	Ed. 306—Junior Practicum	—	0
Ed. 300—Principles and Techniques of Teaching	3	3	Ed. 304—Educational Psychology	3	3
F. A. 341—Art Education I	2	2	F. A. 342—Art Education II	2	2
F. A. 343—Ceramics and Sculpture I	3	2	F. A. 344—Ceramics and Sculpture II	3	2
Music 371—Music Appreciation	2	2	Music 372—Music Appreciation	2	2
Soc. Sci. 203—United States History	3	3	Soc. Sci. 204—United States History	3	3
		—			—
		12			12

Senior

FIRST SEMESTER			SECOND SEMESTER		
	Per.	Sem. Hours		Per.	Sem. Hours
Ed. 403—Student Teaching	—	4	Ed. 404—Student Teaching	—	4
Ed. 409—Comparative Education	3	3	Eng. 404—Contemporary Literature	2	2
Eng. 205—World Literature	3	3	Fine Arts Elective	—	5
F. A. 441—Printmaking	4½	3			—
Fine Arts Elective	—	2			11
		—			—
		15			15

Students majoring in fine arts education have 19 semester hours of electives. Twelve (12) of these semester hours are free electives. The other seven (7) semester hours of elective must be chosen from electives offered by the Fine and Industrial Arts Department. These are listed in the body of the catalogue. The grand total is 128 semester hours required for graduation.

INDUSTRIAL ARTS EDUCATION

Freshman

FIRST SEMESTER	Per.	Sem. Hours	SECOND SEMESTER	Per.	Sem. Hours
Ed. 103—Development of Educational Thought	3	3	Ed. 104—Human Development and Behavior I	3	3
Eng. 101—Fundamentals of Communication	3	3	Eng. 102—Fundamentals of Communication	3	3
I. A. 130—Introduction to Industrial Arts	2	2	I. A. 132—Drawing II	4	2
I. A. 131—Drawing I	4	2	I. A. 136—Graphic Arts I	4	2
I. A. 133—Woodworking I	4	2	Math. 104—Descriptive Statistics	2	2
Math. 103—General Mathematics	2	2	Math. 132—Applied Mathematics	2	2
Sci. 101—Introduction to Biology	3	2	Sci. 102—Introduction to Biology	3	2
		—			—
		16			16

Sophomore

FIRST SEMESTER	Per.	Sem. Hours	SECOND SEMESTER	Per.	Sem. Hours
Ed. 203—Human Development and Behavior II	3	3	Ed. 204—Philosophy	3	3
Health Ed. 101—Physical and Mental Health	2	2	Health Ed. 102—Physical and Mental Health	2	2
F. A. 141—Design I	3	2	I. A. 234—Ceramics	4	2
I. A. 233—Metals I	4	2	I. A. 236—Handicrafts I	4	2
Ph. Ed. 101—Organized Recreation	2	1	I. A. 238—Electricity	4	2
Sci. 203—Introductory Chemistry or	3	2	Ph. Ed. 102—Organized Recreation	2	1
Sci. 205—Introductory Physics or	3	2	Sci. 204—Introductory Chemistry or	3	2
Sci. 207—Earth Science	2	2	Sci. 206—Introductory Physics or	3	2
Sci. 231—Applied Science	2	2	Sci. 208—Earth Science	2	2
Soc. Sci. 103—History of Western Civilization	3	3	Soc. Sci. 104—History of Western Civilization	3	3
		—			—
		17			17

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Junior

FIRST SEMESTER	Per.	Sem. Hours	SECOND SEMESTER	Per.	Sem. Hours
Ed. 305—Junior Practicum	—	0	Ed. 306—Junior Practicum	—	0
I. A. 333—Metals II	4	2	Ed. 304—Educational Psychology	3	3
I. A. 335—Woodworking II	4	2	I. A. 336—Graphic Arts II	4	2
I. A. 337—Principles and Techniques of Teaching Industrial Arts	2	2	I. A. 338—Principles, Methods, and Curriculum in Industrial Arts	2	2
Music 371—Music Appreciation	2	2	Music 372—Music Appreciation	2	2
Soc. Sci. 203—United States History	3	3	Soc. Sci. 204—United States History	3	3
I. A. Elective	4	2	I. A. Elective	4	2
		—			—
		13			14

Senior

FIRST SEMESTER	Per.	Sem. Hours	SECOND SEMESTER	Per.	Sem. Hours
Ed. 300—Principles and Techniques of Teaching	3	3	Ed. 404—Senior Student Teaching	—	4
Ed. 403—Senior Student Teaching	—	4	Eng. 404—Contemporary Literature	2	2
Ed. 409—Comparative Education	3	3	I. A. 434—Transportation	4	2
Eng. 205—World Literature	3	3			—
I. A. 433—Electronics	4	2			8
		—			—
		15			8

The above total 112 semester hours. Industrial arts majors are to choose four (4) semester hours of electives offered by the Fine and Industrial Arts Department and twelve (12) semester hours of free electives to make a grand total of 128 semester hours.

SECONDARY EDUCATION: MATHEMATICS MAJOR

Freshman

FIRST SEMESTER		Per.	Sem. Hours	SECOND SEMESTER		Per.	Sem. Hours
Ed. 103—Development of Educational Thought	3	3		Ed. 104—Human Development and Behavior I	3	3	
Eng. 101—Fundamentals of Communication	3	3		Eng. 102—Fundamentals of Communication	3	3	
Health Ed. 101—Physical and Mental Health	2	2		Health Ed. 102—Physical and Mental Health	2	2	
Math. 161—Basic Mathematics	3	3		Math. 104—Descriptive Statistics	2	2	
Math. 171—College Algebra	4	4		Math. 172—Analytical Geometry	4	4	
Ph. Ed. 101—Organized Recreation	2	1		Ph. Ed. 102—Organized Recreation	2	1	
Sci. 101—Introduction to Biology	3	2		Sci. 102—Introduction to Biology	3	2	
			18				17

Sophomore

FIRST SEMESTER		Per.	Sem. Hours	SECOND SEMESTER		Per.	Sem. Hours
Ed. 203—Human Development and Behavior II	3	3		Ed. 204—Philosophy	3	3	
Eng. 205—World Literature	3	3		Math. 272—Calculus II	4	4	
Math. 271—Calculus I	4	4		Music 372—Music Appreciation	2	2	
Music 371—Music Appreciation	2	2		Sci. 204—Introductory Chemistry or	3	2	
Sci. 203—Introductory Chemistry or	3	2		Sci. 206—Introductory Physics or	3	2	
Sci. 205—Introductory Physics or	3	2		Sci. 208—Earth Science	2	2	
Sci. 207—Earth Science	2	2		Soc. Sci. 104—History of Western Civilization	3	3	
Soc. Sci. 103—History of Western Civilization	3	3					14
			17				

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Junior

FIRST SEMESTER		Per.	Sem. Hours	SECOND SEMESTER		Per.	Sem. Hours
Ed. 305—Junior Practicum	—	0		Ed. 304—Educational Psychology	3	3	
Ed. 370—Principles and Techniques of Teaching Secondary Education	3	3		Ed. 306—Junior Practicum	—	0	
Math. 371—Field and Laboratory Mathematics	3	3		Math. 372—Modern College Geometry	3	3	
Soc. Sci. 203—United States History	3	3		Soc. Sci. 204—United States History	3	3	
			9				9

Senior

FIRST SEMESTER		Per.	Sem. Hours	SECOND SEMESTER		Per.	Sem. Hours
Ed. 403—Student Teaching	—	4		Ed. 404—Student Teaching	—	4	
Ed. 409—Comparative Education	3	3		Eng. 404—Contemporary Literature	2	2	
Math. 470—Teaching Secondary School Mathematics	4	4		Math. 472—History of Mathematics	2	2	
Math. 471—Mathematical Statistics	4	4					8
			15				

The above total 107 semester hours. Students majoring in mathematics in the secondary school are to elect nine (9) semester hours in a minor field as well as twelve (12) semester hours of free electives, making a total of 128 semester hours for graduation.

SECONDARY EDUCATION: SOCIAL SCIENCE MAJOR

Freshman

FIRST SEMESTER		Per.	Sem. Hours	SECOND SEMESTER		Per.	Sem. Hours
Ed. 103—Development of Educational Thought	3	3	3	Ed. 104—Human Development and Behavior I	3	3	3
Eng. 101—Fundamentals of Communication	3	3	3	Eng. 102—Fundamentals of Communication	3	3	3
Health Ed. 101—Physical and Mental Health	2	2	2	Health Ed. 102—Physical and Mental Health	2	2	2
Math. 103—General Mathematics	2	2	2	Math. 104—Descriptive Statistics	2	2	2
Ph. Ed. 101—Organized Recreation	2	1	1	Ph. Ed. 102—Organized Recreation	2	1	1
Sci. 101—Introduction to Biology	3	2	2	Sci. 102—Introduction to Biology	3	2	2
Soc. Sci. 103—History of Western Civilization	3	3	3	Soc. Sci. 104—History of Western Civilization	3	3	3
			16				16

Sophomore

FIRST SEMESTER		Per.	Sem. Hours	SECOND SEMESTER		Per.	Sem. Hours
Ed. 203—Human Development and Behavior II	3	3	3	Ed. 204—Philosophy	3	3	3
Eng. 205—World Literature	3	3	3	Music 372—Music Appreciation	2	2	2
Music 371—Music Appreciation	2	2	2	Sci. 204—Introductory Chemistry or	3	2	2
Sci. 203—Introductory Chemistry or	3	2	2	Sci. 206—Introductory Physics or	3	2	2
Sci. 205—Introductory Physics or	3	2	2	Sci. 208—Earth Science	2	2	2
Sci. 207—Earth Science	2	2	2	Soc. Sci. 204—United States History	3	3	3
Soc. Sci. 203—United States History	3	3	3	Soc. Sci. 272—History of Eastern Civilization	3	3	3
Soc. Sci. 271—History of Eastern Civilizations	3	3	3				13
			16				13

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Junior

FIRST SEMESTER		Per.	Sem. Hours	SECOND SEMESTER		Per.	Sem. Hours
Ed. 305—Junior Practicum	—	0	0	Ed. 304—Education Psychology	3	3	3
Ed. 370—Principles and Techniques of Teaching Secondary Education	3	3	3	Ed. 306—Junior Practicum	—	0	0
Soc. Sci. 371—Principles of Sociology	3	3	3	Soc. Sci. 366—Fundamentals of Geography	3	3	3
Soc. Sci. 373—World Politics	3	3	3	Soc. Sci. 372—Teaching Secondary School Social Studies	3	3	3
Soc. Sci. 471—Growth of American Thought	3	3	3	Soc. Sci. 472—Introduction to Economics	3	3	3
			12				12

Senior

FIRST SEMESTER		Per.	Sem. Hours	SECOND SEMESTER		Per.	Sem. Hours
Ed. 403—Student Teaching	—	4	4	Ed. 404—Student Teaching	—	4	4
Ed. 409—Comparative Education	3	3	3	Eng. 404—Contemporary Literature	2	2	2
Soc. Sci. 413—Regional Geography of North American	3	3	3	Soc. Sci. 474—The American Business System	3	3	3
Soc. Sci. 473—United States Government and Politics	3	3	3				9
			13				9

The above total 107 semester hours. Students majoring in social science in the secondary school are to elect nine (9) semester hours in a minor field as well as twelve (12) semester hours of free electives: a total of 128 semester hours for graduation.

DESCRIPTION OF COURSES

The courses regularly offered by the college are listed and described according to departments on the following pages. An attempt has been made to limit the descriptive material. Editorial comment regarding the need and aim of the course has been omitted.

The number preceding each course designates the year in which it is offered, the curriculum, and the semester. The first digit of the number indicates the year in which the subject is given; for example, one denotes freshman year, two denotes sophomore. The second digit denotes the curriculum. Zero denotes subjects required of all students. One denotes subjects required of students in the general elementary curriculum; two, the kindergarten-primary curriculum; three, the industrial arts curriculum; four, the fine arts curriculum; five, the curriculum for the teachers of handicapped children; six the junior high school curriculum; and seven, the secondary curriculum.

The third digit is odd if the subject occurs in the first-semester and even if it occurs in the second semester. The letter X before a digit represents an elective open to all students.

EDUCATION

Courses under this heading provide the more specifically professional content and the core experiences which help to give professional direction to the offerings of all departments. College classroom study is closely related to first-hand experiences in cooperating schools and agencies where the student learns by observation, participation, and responsible leadership how to work with children and youth. The education department recognizes its major responsibility for providing and interpreting these professional laboratory experiences.

The basic professional courses of the first two years help to establish the social and psychological foundations of education. The laboratory is the student's home or college community, and visits are made to schools representative of contrasting types of communities and educational programs. Beginning in the second year, a systematic study is made of children and youth at different maturity levels in the elementary, junior, and senior high schools.

In the junior year the basic professional courses function as the core of the junior practicum, which draws together the professional offerings of all the departments. The professional content noted in the course descriptions may be treated either in college classes or in the laboratory situation. In the senior year the education department offerings again serve as an integrating function with the emphasis placed upon responsible student teaching.

The courses during the junior and senior year deal with the theory and practice of education as an immediate preparation for teaching. Principles developed from the history of education, from philosophy, psychology, anthropology, and sociology are applied and translated into methods of teaching the various subjects, of aiding the personal adjustment of pupils, of defining the professional function of the teacher, of conducting the social enterprises of the classroom, and of evaluating the results of the teacher's efforts. The content of specific courses is more fully described below.

Because of its concern with the underlying principles of education, the education department accepts a responsibility for leadership in a continuous critical examination of the curriculum and the teaching process in the schools, as well as the continuous improvement of the whole college program for the education of teachers. So far as the maturity and experience of the students warrant, they have an opportunity to contribute to this creative effort to build a better curriculum and to refine the teaching process.

Ed. 103 Development of Educational Thought (3 sem. hrs.)

The purpose of the course is to (1) analyze the interaction of culture and education, (2) develop from an historical perspective the evolution of modern education, and (3) examine contemporary issues and problems found in American education today. Field trips to public schools are made to illustrate principles discussed in class.

Ed. 104 Human Development and Behavior I (3 sem. hrs.)

This first course in general psychology is designed to help the student obtain a better understanding of human behavior both as a contribution to the student's general education and as a basis for further specialization in professional courses in education. Some of the topics for consideration are the scientific method in psychology, sensation, perception, emotion, motivation, learning, memory, measured intelligence, reflective thought, personality formation, and applied psychology.

Ed. 203 Human Development and Behavior II (3 sem. hrs.)

Designed to help students gain an understanding of human behavior from pre-natal development to maturity, this interdisciplinary course includes the study of physical, intellectual, emotional, and social behavior. Emphasis is placed on child growth and development, Behavior characteristics of different age levels, individual differences, and method of adjustment are considered. The student is introduced to

the techniques of studying individuals and to research findings on the characteristics of normal children. He begins to analyze the influences affecting growth and development and their relation to the learning process.

Ed. 204 Philosophy (3 sem. hrs.)

This course attempts to present the student with a general introduction to the discipline of philosophy which will be useful in the student's effort to clarify his philosophy of life as well as his educational philosophy. Great men and their ideas are identified, the schools of philosophy are defined and the issues basic to them are discussed. Primary materials are used as much as possible, and an effort is made to illustrate philosophic thinking by referring to cultural issues. Among the topics considered are the meaning of philosophy, reality, knowledge values, and social philosophy.

Ed. 251 Introduction to the Education of the Handicapped (2 sem. hrs.)

Early detection and proper educational care of all handicapped children are provided for in this course. Incidence, causes, and diagnosis of handicaps as well as consideration of different remedial procedures are essential to any adequate program. Visitations will be made to observe programs for the mentally and physically handicapped.

Ed. 304 Educational Psychology (3 sem. hrs.)

This course emphasizes those aspects of psychology which most immediately apply to teaching. It is primarily concerned with a critical analysis of the learning process, its theoretical foundation, and its application. Among others it considers the following topics: learning and culture, trial and error, conditioned response, insight, reflective thought, creative thought, and applied psychology in teaching.

Ed. 305-306 Junior Practicum for All Curricula (0 sem. hrs.)

Professional laboratory experiences are here integrated with college classes. The student must present as prerequisites a satisfactory academic record and evidence of successful participation in work with children or youth. (See description on p. 33 of the catalogue).

Ed. 313-314 Elementary Curriculum (10 sem. hrs.)

This course will introduce the student to (1) the teaching of the various subject matter areas (2) curriculum patterns found in the elementary schools, and (3) process of planning.

Ed. 323 Child Development and the Early Childhood Curriculum I (6 sem. hrs.)

This course is the first part of an eleven semester hour sequence which will show the development of the curriculum for children of the nursery, kindergarten, and primary grades. New aims, approaches, methods and materials in early childhood education that have been derived from current knowledge and research in child development will be considered and evaluated.

In Education 323 attention will be focused on the curriculum for the nursery and kindergarten child. Its historical development and recent trends which are based on the child development approach will be noted. Students will study and evaluate many different techniques and materials that good teachers use in various activities, as well as observe and participate in nurseries and kindergartens. Special emphasis will be placed on the use of art media and other creative materials.

Ed. 324 Early Childhood Curriculum II (5 sem. hrs.)

Emphasis in this part of the eleven hour sequence will be on the program for the primary grades. Various curricular approaches used in different school systems will be studied. Suggestive, functional learning experiences based on sound principles of child development for children of different ages, maturity levels, and abilities in the primary grades will be explored by the students. The integration of subject areas such as social science, arithmetic, science, health, language arts, crafts, art, music, and physical education will be shown.

Ed. 361-362 Educational Programs for the Pre-Adolescent and the Adolescent I and II (6 sem. hrs.)

This course introduces the student to curriculum policies and practices in the junior high school. Typical junior high school programs are studied through visits to local schools and through the literature on the subject. The nature of core instruction is identified. Investigations are made of the process of planning and preparing lessons and resource units. The student is also prepared to fulfill the requirements of the field part of the practicum.

Ed. 370 Principles and Techniques of Teaching in Secondary Education (3 sem. hrs.)

This course introduces the student to curriculum patterns, planning techniques, methods of discussion, and to general principles of instruction required for teaching in the secondary school.

Ed. 401 Classroom Applications of Mental Hygiene (2 sem. hrs.)

Devoted to an examination of the principles of mental hygiene and their applications to education, this course includes the consideration of such topics as personality formation, emotional needs, techniques of adjustment, defense mechanisms, neurosis, psychosis, normal deviation, and the classroom application of mental hygiene.

Ed. 403-404 Student Teaching for All Curricula (8 sem. hrs.)

Gradual induction into teaching is given. The student is assigned as co-worker to a successful teacher in the public schools. The assignment is made on the basis of the present training needs of the student, but factors of convenience and preference are also considered. The student is supervised and rated by his college supervisor with the assistance of the cooperating teacher. The work includes all activities of teaching, both planning and execution. By the end of the period, the student takes full charge of the class for several days at a time.

Ed. 409 Comparative Education (3 sem. hrs.)

A comparative analysis of education in representative Asian, African, European, and South American countries is presented. Emphasis is placed on the social, political, and economic foundations responsible for the developing of specific educational systems.

Ed. 424 Parent-Teacher-Child Relationships in Early Childhood Education (2 sem. hrs.)

The role of the teacher in establishing a working relationship with parents and lay groups that are concerned with the welfare of young children will be studied. The students will be helped to understand the parent's and child's point of view and to know specific techniques and materials for conducting parent-teacher conferences, group meetings, child study groups, and workshops. Community and human resources which may be used to enrich children's experiences will be explored. Special attention will be given to problems related to child health and nutrition.

Ed. 461 Junior High School Programs (3 sem. hrs.)

This course will be primarily concerned with observation and discussion of selected junior high school programs.

Ed. 550 Orientation in Psychological Testing (2 sem. hrs.)

An overview of accepted verbal and objective clinical tests which are in use in most psychological clinics is given. The course will provide for practice in the administration of a few tests under supervision,

so that the student will become more familiar with the behavior of individuals, especially the mentally handicapped, in test situations.

Ed. 551 Speech Correction (2 sem. hrs.)

This is an orientation course for all classroom teachers. Attention will be given to the recognition and treatment of speech disorders due to structural, emotional, or mental conditions.

Ed. 552 Curriculum Building for Different Maturation Levels of the Mentally Retarded (3 sem. hrs.)

An analysis is made of all curriculum material suitable for the education of the mentally retarded. Emphasis is given to building a curriculum from selected materials which emphasize the social and vocational adjustment of the mentally retarded. Definite consideration is given to the building of a unified curriculum which meets the social and emotional needs of mentally retarded of different maturational levels.

Ed. 553 Phonetics (2 sem. hrs.)

The speech sounds from the acoustic, visual, and kinesiological approaches are studied. This is an essential course for teaching phonics, for work in general speech improvement, and for aiding children with articulatory speech defects.

Ed. 554 Reading Disabilities (2 sem. hrs.)

Means of adapting the reading program to individual needs is stressed. Attention will be centered on the neurological, physical, mental, and emotional aspects which may impede learning. A survey will be made of the literature pertaining to the teaching of slow-learning children. Material suitable for slow-learning children will also be assembled.

Ed. 555 Materials, Programs, and Methods for Teaching the Mentally Retarded (3 sem. hrs.)

Emphasis is on the construction of programs which will adequately correlate skill subjects with the core of interest, emphasizing subject-time allotments, and subject spacing. Consideration will be given to the evaluation and use of all records. Curricular materials, which can be used to teach mentally handicapped children at various levels, will be selected and compiled.

Ed. 556 Speech Pathology (3 sem. hrs.)

Consideration is given to the speech disorders of aphasia, stuttering, cleft palate speech, aphonia, and to the speech of the physically and mentally handicapped.

Ed. 557 Speech Clinic (Part One—2 sem. hrs.)

Prerequisites for taking this course are (1) Speech Correction (2) Phonetics, and (3) Speech Pathology.

This is the first semester of a two-semester course giving an opportunity for clinical practice with different types of speech handicapped, in diagnosis, referral to other specialists, and training and treatment procedures.

Ed. 558 Speech Clinic (Part Two—2 sem. hrs.)

Prerequisites for taking this course are (1) Speech Correction (2) Phonetics, and (3) Speech Pathology.

This is the second semester of a two-semester course. Part two offers an opportunity for clinical practice with different types of speech handicapped in diagnosis, referral to other specialists, and training and treatment procedures.

Ed. 559 Audiometric Testing and Hearing Aids (2 sem. hrs.)

Instruction in the methods and techniques of conducting hearing tests and of using hearing aids is a vital part of this course. Consideration is given to the relationship of hearing loss to speech and language and in the attention that must be given to remedial educational procedures.

Ed. 5501 Methods in Teaching the Hard of Hearing (3 sem. hrs.)

Special methods and techniques in teaching the elementary subjects to hard of hearing children are employed. Emphasis is placed on the coordination of reading, speech, hearing, and speech reading.

Ed. 5502 Lip Reading (Speech Reading) (2 sem. hrs.)

An analysis of the visual speech-reading problems, with methods and techniques for teaching speech reading, is presented. Foundation procedures, fundamental exercises, source materials, and teaching plans are an essential part of the course.

Ed. X24 Visual and Audio Aids (2 sem. hrs.)

Including the study of such audio-visual materials of instruction as pictures, charts, slides, recordings, the motion picture, and educational radio and television, this course also covers the operation of audio-visual equipment. Special attention will be given to the nature of the above materials, problems of selection, and techniques for their use in the classroom.

ENGLISH

The study of English in a teachers college has the multiple purpose of extending the student's understanding of language and literature, developing his ability to communicate effectively, and equipping him to guide children's growth in the language arts. For this reason the program in English offers courses designed to increase the student's understanding and appreciation of great works of literature, extend and refine his communication skills, and prepare him professionally to teach the language arts in the elementary and junior high school.

Eng. 101-102 Fundamentals of Communication (6 sem. hrs.)

Reading, writing, speaking, and listening are studied and practiced as communication skills in this course. Emphasis is placed upon effectiveness, clarity, and accuracy in the use of English for personal and professional purposes. The major concepts of linguistic science are studied and evaluated in relation to present-day English. Instruction is given in the basic speech skills, and the importance of appropriate standards of speech in the teaching profession is emphasized.

Eng. 205 World Literature (3 sem. hrs.)

Selected readings in world literature from ancient times to the present day constitute the basis of this course. Literature is studied as an interpretation of the continuum of human experience, and the student's understanding of the interrelationship of literature with the other arts is fostered. Lecture-discussions promote critical reading, and opportunities are offered for integrating literature with other areas of life.

Eng. 224 Children's Literature in Early Childhood Education (2 sem. hrs.)

Students will study the different techniques and merits of storytelling and will have the opportunity to put these into practice with groups of children. They will learn to evaluate the suitability of stories, poems, and informational material for various age levels. They will become familiar with good contemporary authors and illustrators of children's books as well as know something of the historical development of the literature for young children.

Eng. 266 World Literature (3 sem. hrs.)

This course continues the work of English 205, and is required of those seeking English competency in junior high school education.

• **Eng. 315 Language Arts in the Elementary School**
(4 sem. hrs.)

This course is designed to develop the prospective teacher's competence in guiding children's experience in the language arts. It includes an introduction to philosophy, materials, and methods for teaching literature, reading, writing, and speaking in the elementary school. The characteristics of a sound language arts program are studied through lecture-discussion review of current research, and close integration with the student's practicum experience.

Eng. 321 Language Arts in Early Childhood Education
(5 sem. hrs.)

The development of language skills (speaking, reading, writing) in young children at various age levels is presented here. Students study techniques for providing a sound language program for nursery-kindergarten-primary age children, as well as developing their own skills in speaking, story-telling, reading aloud, and handwriting. This work necessitates that students study important research in this area, evaluate, and learn to use various methods and materials of instruction.

Eng. 361 Language Arts for Adolescents (3 sem. hrs.)

In this course young people's interests are explored, and ways of meeting, extending, and refining these interests through literature are studied. Students also consider various modern approaches to the teaching of speaking, reading, and writing. The design of the course thus enables the prospective teacher to guide young adolescents in their total language development.

Eng. 362 Foundations of Language (3 sem. hrs.)

The purpose of this course is to give the prospective teacher a survey of the background, growth, and structure of the English language from its Indo-European origin to modern times, an introduction to the science of linguistics, an appreciation of several foreign language patterns, and a rich fund of information in the fields of general language.

Eng. 404 Contemporary Literature (2 sem. hrs.)

American, English, and European literature of the twentieth century is explored in this course. Ideas, forms, and trends are studied in relation to the social, aesthetic, and ethical assumptions of contemporary life. Besides the common readings required of all, each student plans a program of independent reading to meet his personal needs and interests.

Eng. 421 Reading in Early Childhood Education
(2 sem. hrs.)

This course is one of the guided electives for the early childhood majors. It is intended to give those students who are planning to teach in the primary grades additional methods and materials for developing reading readiness, for guiding children's first steps in learning to read, and for carrying on a functional reading program.

Eng. 461 Contemporary Literature (3 sem. hrs.)

This course is an expansion of English 404 and is offered for three semester hours to those seeking English competency in junior high school education.

Eng. 462 Critical Approaches to Literature (3 sem. hrs.)

Through this course students are helped to analyze the qualities and philosophy of literature considered as part of life itself and to apply the principles of literary criticism to a broad selection of writings from the literature of many ages and peoples. The student's own critical writing is guided and evaluated.

Eng. 463 American Literature (3 sem. hrs.)

This course offers a survey of American literature from its beginning to the present day, with special emphasis upon the emergence in literature of the American ideal. Each student is encouraged to select an area for individual study within the larger framework of the course. Besides extending their own literary backgrounds, students develop competence in transmitting the American literary heritage to young people of junior high school age.

FINE ARTS

The content and procedures of the courses in fine arts are selected to give the student these understandings:

1. Everyone has the ability to create and to appreciate art.
2. Rounded development of personality requires the exercise and development of this ability.
3. The arts are both the recorders and predictors of civilization.
4. Art is the expression of the period and the culture in which it is created.
5. The arts permeate daily living.
6. Art is both product and process.
7. Art is emotion and intellect, idea and technique.

8. Art communicates ideas and emotions through the language of vision.
9. Similar principles govern expression and communication in all the arts.

Four principles govern the selection and organization of the content of the fine arts curriculum:

1. The art curriculum provides contact with all the disciplines which contribute to the student's understanding of the culture and its sources, and also to his effectiveness as a citizen of a democracy.
2. The art curriculum provides contact with those disciplines which contribute to the student's understanding of the principles of learning and maturing, since the art teacher is primarily an educator.
3. The art curriculum provides the student with experiences in a variety of art forms so that he may develop command over the basic knowledges, techniques and skills of each form, since this is the content of his teaching.
4. The art curriculum provides, in each course, a three-fold experiencing of personal achievement of techniques in the art form, contemporary and historic development of the art form, and the pattern of child growth and development in the art form.

F.A. 141-142 Design I and II (6 sem. hrs.)

Required for Fine Arts Majors

Design I required for Industrial Arts Majors

Design II an elective for Industrial Arts Majors

This course is a broad orientation to the art forms of our culture, with special emphasis being placed on the arts of daily living. Basic content includes a functional study of the elements and principles of design through individual experimentation with a wide variety of materials. Contemporary examples of design in painting, sculpture, architecture, furniture, graphic design, and others will be studied through museum trips, group discussion, and related readings. Design I is a prerequisite for Design II.

F.A. 143-144 Crafts I and II (6 sem. hrs.)

Required for Fine Arts Majors

Elective for others

This course is an introduction to several fundamental craft areas, including metals, jewelry, textile design, leather, puppetry and con-

struction in varied materials. The basic craft experiences provided by this course can be further developed through the student's choice of electives. Activities of the course are so planned as to allow the individual student some choice in planning his program of activity. Both semesters will include a study of contemporary crafts as well as a consideration of the role of craft activities in the art program of the public school.

F.A. 211-212 Experiencing Art I and II (6 sem. hrs.)

Required for General Elementary and Early Childhood Education Majors

This course is designed to give students the experience of art through creating, selecting, and analyzing art products. The emphasis is placed on the development of an understanding of the nature of art and the experience of art, the significance of these to the individual and to the culture. The content is selected from all art forms and is related to student needs and interests. Personal exploration of materials, tools and processes of art, readings in contemporary and historic forms, and trips to appropriate sources are procedural methods of the course.

F.A. 241-242 Painting and Drawing I and II (6 sem. hrs.)

Required for Fine Arts Majors

Elective for others

This is a studio course dealing with two-dimensional design and expression using many media. Opportunity will be provided for the student to explore a wide variety of materials and also to develop a greater proficiency in the use of a medium of his own choice. Although both semesters may be elected, Painting and Drawing I is prerequisite for Painting and Drawing II.

F.A. 243-244 Art and Civilization I and II (4 sem. hrs.)

Required for Fine Arts Majors

Elective for others

A study is made of historic periods in which the art products most clearly reflect the culture. The impact on art of geographic conditions and social, economic, and religious forces is studied. Contemporary art forms are examined through a study of their historic roots. The course serves to integrate the student's historic art information and to develop his critical and evaluative abilities. Although both semesters may be elected, Art and Civilization I is prerequisite for Art and Civilization II.

F.A. 261-262 Fine and Industrial Arts I and II (6 sem. hrs.)

Required for Junior High School Majors

The content of this course is similar to that described under Experiencing Art I and II. Additional emphasis will be placed, however, upon the role of the industrial arts in the curriculum of the junior high school. Since this is the only required course in the visual arts for junior high school major students, course content will be adjusted to provide an introduction to the principles and procedures in art education, including child growth and development in creative activities, the psychology of art, the role of the creative process in the education of children, and the relationship of the arts to the junior high school core curriculum.

F.A. 312 Art in Education (2 sem. hrs.)

Required for General Elementary Majors

The nature and function of the arts in childhood education are studied through lecture and discussion, examples of child art, readings in the psychology and philosophy of art, study of research findings in the nature of the developmental pattern of graphic and plastic expression, and studio work in materials and processes applicable to the school situation. The student studies the place of the arts in the total program and good practices in curriculum organization. Practical aspects of teaching art, such as sources of materials and tools, their cost, care and organization, are studied.

F.A. 321 Art in Early Childhood Education (2 sem. hrs.)

Elective for Early Childhood Education Majors

The nature and function of creative experience in early childhood education are studied through group discussion, related readings, and studio activities using a variety of media. Consideration will be given to the developmental nature of creative growth and the practical problems of planning and organizing a program in the graphic and plastic arts for young children. Studio activities will be carried on by the student using those materials and processes which are applicable to the early childhood education classrooms, with emphasis placed on the use of found-materials and the improvisation of tools and equipment.

F.A. 341-342 Art Education I and II (4 sem. hrs.)

Required for Fine Arts Majors

Elective for Industrial Arts Majors

The role of the expressive arts in the education of the child is analyzed through lecture, discussion, and readings, as well as the student's first-hand experiences in Junior Practicum. The first semest-

er will emphasize the nature of the creative process, child growth and development in creative activity, the psychology of art, and the techniques of planning and teaching art experiences. The second semester will deal primarily with analysis of the student's teaching experiences, principles of curriculum planning, analysis of selected art curricula, and the practical problems of studio organization and management of tools and materials.

F.A. 343-344 Ceramics and Sculpture I and II (4 sem. hrs.)

Required for Fine Arts Majors

Elective for others

Materials and methods in ceramics and sculpture will be examined concurrently. The introduction to ceramics will emphasize the problem of design, the basic forming processes such as hand building and casting, and methods of surface treatment. Three-dimensional design in sculpture will involve the use of a number of processes and materials such as terra cotta, wood, stone, plaster, metals, and plastics. A survey of contemporary forms in ceramics and sculpture will be made through museum trips, discussion, and readings. A study will be made of the three-dimensional expression of children.

F.A. 441 Printmaking (3 sem. hrs.)

Required for Fine Arts Majors

Elective for others

A wide variety of materials and processes in printmaking are explored by the student, with emphasis being placed on the processes most applicable to the school situation. Techniques such as linoleum cut, woodcut, wood engraving, etching, drypoint, and the use of improvised materials in printmaking will be examined through studio experiences. A study of design and expression in contemporary prints will be made through museum trips, discussion, and readings.

F.A. 551 Arts and Crafts for Mentally Retarded (3 sem. hrs.)

Meaningful and interesting manual activities for sequential skill development are taught. These projects will be with wood, leather, plastics, metal, ceramics, basketry, cardboard, and weaving.

F.A. X41 Commercial Design (2 sem. hrs.)

Elective for all students

This is an introductory study of contemporary forms in commercial design, including advertising layout, lettering, display and packaging. In addition to a consideration of design factors, the student will engage in studio activities in these areas. Studio work will be supplemented by group evaluation and related readings.

F.A. X42 Home Design and Furnishing (2 sem. hrs.)

Elective for all students

After an analysis of contemporary living needs and a study of today's building materials and methods, the student engages in workshop activities in the design of home interiors and furnishings. Historic forms of building are studied in order to illustrate the relation between the culture and the architectural form.

F.A. X43 Weaving (2 sem. hrs.)

Elective for all students

The content of this course deals with design in woven fabrics, treated through studio experiences in hand weaving. After a consideration of the methods of weaving and simple, improvised hand looms, the student will study the operation of table and floor looms. The design problem in woven fabrics will be central, with the student being involved in original textile designing as well as the mechanical operation of the loom. Contemporary forms in textile will be examined through museum and shop visits, group discussion, and readings.

F.A. X44 Costume Design (2 sem. hrs.)

Elective for all students

This is a fundamental course in principles of designing for costume. The problems of function, materials, and expression will be integrated with basic aspects of visual design. Studio experiences in costume designing and illustration will be provided. Contemporary and historic forms will be examined through museum trips, discussion and readings.

F.A. X45 Jewelry (2 sem hrs.)

Elective for all students

This is a studio course dealing with factors of design and construction in jewelry. Emphasis will be placed on the basic forming processes with copper, silver, and pewter. Also considered will be the methods of stonemasonry and metal enamelling. A study will be made of jewelry design of our own and selected historic periods.

F.A. X46 Stagecraft (2 sem. hrs.)

Elective for all students

Stagecraft involves a study of the fundamental techniques used in scenery construction, management, and lighting. The student will carry out studio problems in stage design, with emphasis placed on play analysis in terms of the needs of expression, materials, and time factors. The historic development of stage setting types will be used to

illustrate the development of contemporary practices. Some consideration will be given to the problem of staging dramatic presentations with children.

F.A. X50 Advanced Painting (3 sem. hrs.)

Elective for Fine Arts Majors

Others with permission of the Fine Arts Faculty

This is a continuation of the drawing experiences of the required course Painting and Drawing I and II. The student will carry on an individual exploration of a painting medium of his own choice, with the consultation of the instructor. Although individual studio experiences will comprise the basic content of this course, an advanced analysis of contemporary forms in painting will be accomplished through museum trips, group analysis and discussion, and related readings.

F.A. X51 Life Drawing (2 sem. hrs.)

Elective for Fine Arts Majors

Others with permission of the Fine Arts Faculty

A study of the human form is made through experiences in drawing from life. Emphasis will be placed on articulation, gesture, contour, and mass. A consideration will be made of the human form in the art expression of other cultures and our own.

F.A. X52 Philosophy of Art Education (2 sem. hrs.)

Elective for Fine Arts Majors

Others with permission of the Fine Arts Faculty

Theory and practice of art in education comprise the basic content of this course. Wide reading in the philosophy and psychology of art education will be the source of criteria for evaluating current theories and practices. A study will be made of the historical roots of contemporary theories in art education.

F.A. X53 Advanced Ceramics (3 sem. hrs.)

Elective for Fine Arts Majors

Others with permission of the Fine Arts Faculty

This course provides opportunity to continue, on an advanced level, the ceramic experiences of Ceramics and Sculpture I and II. Course content includes advanced forming methods and surface treatment, with emphasis placed on throwing on the potter's wheel and the compounding of ceramic glazes. A thorough analysis of the problems of ceramic design will be made through museum trips, lecture and discussion, and related readings.

F.A. X54 Advanced Sculpture (3 sem. hrs.)

Elective for Fine Arts Majors

Others with permission of the Fine Arts Faculty

This is a continuation of the sculptural design aspect of Ceramics and Sculpture I and II. Content includes advanced techniques in three-dimensional design, with emphasis placed on direct carving in wood and stone, casting, and the use of metals. A thorough analysis will be made of the design and expression qualities of the work of contemporary sculptors.

F.A. X55 Photography (2 sem. hrs.)

Elective for all students

Photography as an art form is examined through a study of the requirements of design and expression. Fundamental processes will be studied, including exposure, developing contact printing, and enlarging. Emphasis will be placed on the expressive quality of the photograph through a study of the work of contemporary photographers.

F.A. X56 Lithography and Silkscreen (3 sem. hrs.)

Elective for all students

This course will deal with the making of prints by stone and metal plate lithography and with the silkscreen process. Emphasis will be placed on the expressive and design qualities of the print. A study will be made of contemporary forms in lithography and silk screen through museum trips, discussion, and related readings.

INDUSTRIAL ARTS

The industrial arts program of the college proposes to increase the student's knowledge and skills in the major industrial art areas—woodwork, metal work, plastics, electricity, mechanical drawing, and the graphic arts. It is presupposed that the student enrolling for the industrial arts program has had preliminary training and contact in his secondary school work with industrial arts subjects. In addition to increasing the above knowledges and skills, the student is directed in the techniques of teaching industrial arts in the secondary schools.

The industrial arts department emphasizes the relation of the cultural aspects of arts to the development of civilization and the vital part that industry plays in the lives of each of us today. Creative satisfactions resulting from well-designed and carefully executed projects are provided for in the experience the student finds in this area.

The student majoring in the industrial arts is expected to have contact with industry through having actually worked in an industrial establishment. This is obtainable in the summer or preceding the student's enrollment at the college.

Orientation

I.A. 130 Introduction to Industrial Arts (2 sem. hrs.)

Required for Industrial Arts Majors

The purpose of this course is to familiarize the student with the nature, content, and implications of the industrial arts program. Analysis and discussion of many of the problems relating to the further development of industrial arts as an essential part of general education will be included.

I.A. 337 Principles and Techniques of Teaching Industrial Arts (2 sem. hrs.)

Required for Industrial Arts Majors

Patterns of organization, class management, teaching methods, and lesson planning are of primary concern in this course. An opportunity to recognize and analyze the many problems of teaching industrial arts will be provided. The course is practical in viewpoint in that it deals with teaching situations and personal relationships.

I.A. 338 Principles, Methods, and Curriculum in Industrial Arts (2 sem. hrs.)

Required for Industrial Arts Majors

The major area of this course entails the study of accepted industrial arts curriculum and teaching practices used in the public schools of New Jersey. Specific problems will include shop organization, finance, safety, distribution of supplies and equipment, public relations, evaluating and record keeping, shop planning, equipment selection, and the industrial arts teacher and his profession.

Courses of Instruction

Drafting

I.A. 131 Drawing I (2 sem. hrs.)

Required for Industrial Arts Majors

Elective for all Fine Arts Majors

This course enables the student to acquire a general background in the field of mechanical drawing. It will include instrument selection and use, basic design, multi-view drawing, lettering, dimensions, notes, blackboard illustration, geometric construction, graphs, topographic drawing, and reproduction of drawings.

I.A. 132 Drawing II (2 sem. hrs.)

Required for all Industrial Arts Majors

The second experience in the drawing area embodies surface development, revolutions, sectional views, auxiliary views, pictorial representations, and axonometric drawing.

I.A. 232 Drawing III (2 sem. hrs.)

Elective for All Industrial Arts Majors

The third experience in the drawing area includes advanced design, fasteners, shop processes, gearing and cams, exploded view drawings, and assembly drawings.

I.A. 331 Drawing IV (2 sem. hrs.)

Elective for Industrial Arts Majors

The fourth experience in this area embodies all aspects of architectural drawing. Included in the course are preliminary sketching, perspective drawing and models, working drawing, detail drawing, construction symbols and specifications.

Wood

I.A. 133 Woodworking I (2 sem. hrs.)

Required for Industrial Arts Majors

In this introductory course in woodworking, skills, techniques, and procedures are acquired through active participation. The area includes lumber selection and use; use, care, and maintenance of hand tools; jointery; fastening devices and hardware; carving, and finishing

I.A. 335 Woodworking II (2 sem. hrs.)

Required for Industrial Arts Majors

This course provides for the development of advanced skills, techniques, and procedures pertaining to the use, safety, and maintenance of all common woodworking machinery. Advance techniques in machine and wood finishing will be included.

I.A. X30 Woodworking III (2 sem. hrs.)

Elective for Industrial Arts Majors

This course is designed to meet the needs of individuals desiring additional experience in woodworking. Instruction will be given in the areas of pattern making, cabinet making, and upholstery.

I.A. X31 Woodworking IV (2 sem. hrs.)

Elective for Industrial Arts Majors

The fourth experience in this area provides for advanced work in the wood area. It will entail work in the technique of mass production and carpentry. Each student will design a project that can be mass produced. This will require all jigs and fixtures necessary for its manufacture.

Graphic Arts

I.A. 136 Graphic Arts I (2 sem. hrs.)

Required for Industrial Arts Majors

Elective for Fine Arts Majors.

A general introduction to the field of graphic arts is given in this course. The area includes a study of basic information, layout and design, hand composition, proofing, distribution, pilot press operation, methods of duplication, block printing, and line cut making.

I.A. 336 Graphic Arts II (2 sem. hrs.)

Required for Industrial Arts Majors

The emphasis in this second experience with graphic arts will be placed on advanced techniques of graphic reproduction. The students will experience the art of dry point etching, wood cut making, rubber stamp making, silk screen printing, letter press printing, photography, and bookbinding.

F.A. 141-142 Design I and II (6 sem. hrs.)

Required for Fine Arts Majors

Design I required for Industrial Arts Majors

Design II an elective for Industrial Arts Majors

This course is a broad orientation to the art forms of our culture, with special emphasis being placed on the arts of daily living. Basic content includes a functional study of the elements and principles of design through individual experimentation with a wide variety of materials. Contemporary examples of design in painting, sculpture, architecture, furniture, graphic design, and others will be studied through museum trips, group discussion and related readings. Design I is a prerequisite for Design II.

I.A. 438 Graphic Arts III (2 sem. hrs.)

Elective for Industrial Arts Majors

This course will be primarily concerned with advanced techniques of offset printing and photography.

Metal

I.A. 233 Metals I (2 sem. hrs.)

Required for Industrial Arts Majors

An introduction to the art of metalworking, this course gives the student an opportunity to acquire fundamental skills, techniques, and procedures through active participation. This area includes design and development of projects, jewelry, etching, enameling, sheet metal, art metal, and bench metal.

I.A. 333 Metals II (2 sem. hrs.)

Required for Industrial Arts Majors

Emphasis is placed on the development of advanced skills, techniques, and procedures pertaining to the use, safety, maintenance, and operation of all common metalworking machinery. Area of work includes machine shop, forge, heat treating, foundry, metal spinning, brazing, welding, soldering, and electroplating.

I.A. X32 Metals III (2 sem. hrs.)

Elective for Industrial Arts Majors

This course is designed to provide advanced experiences for those individuals who desire to specialize in a particular phase of metalworking. The content of the course will be determined by the needs of the students enrolled.

Electricity and Electronics

I.A. 238 Electricity (2 sem. hrs.)

Required for Industrial Arts Majors

Presented in this course is a comprehensive study of electricity including: theory of atomic structure, static electricity, circuits, power, resistance, wire sizes, temperature, magnetism, electromotive force, measurement and meters, motors, generators, and appliance repair. Opportunity will be provided for the student to apply this technical information.

I.A. 433 Electronics (2 sem. hrs.)

Required for Industrial Arts Majors

The work within this area will permit the student to become familiar with the theory and component parts of equipment used in communications, radio, and television. The student will be required to design and construct an electronic device suitable for use in the industrial arts program of the secondary schools.

Transportation

I.A. 434 Transportation (2 sem. hrs.)

Required for Industrial Arts Majors

This course presents an introduction to the area of transportation with the study of internal and external combustion engine, repair and maintenance of the two and four cycle engine commonly used in our society, and the investigation of diesel and other forms of power.

Crafts

I.A. 236 Handicraft I (2 sem. hrs.)

Required for Industrial Arts Majors

This course gives the student a basic understanding of colonial handicrafts. Areas of work include basketry, waffle weaving, loom weaving, rope making, leather, candle making, and the like.

I.A. 234 Ceramics (2 sem. hrs.)

Required for Industrial Arts Majors

Making pottery by slab, coil, throwing, and casting; decorating with slip, underglaze, sgraffito and glaze; and stacking and firing the kiln comprise important parts of the course. The relationship of material, processes, and function, as a basis of design in ceramics for industrial production, is studied.

I.A. X34 Handicrafts II (2 sem. hrs.)

Elective for Industrial Arts Majors

A continuation of Handicrafts I, this course includes work in the areas of cork, keene, cement, beads, copper foil, plaster of paris, advanced leather, and the like.

I.A. X35 Plastics (2 sem. hrs.)

Elective for all Industrial Arts Majors

Plastics is playing an important role in our modern industrial society. This course will consist of an introduction to plastics, cutting, forming, fabrication, finishing and polishing procedures, internal carving, and methods of molding and casting.

Service Courses

I.A. 145 Basic Industrial Arts (2 sem. hrs.)

Required for Fine Arts Majors

Elective for others

Methods of working in wood, metal, and plastics comprise the basic content of this course. Emphasis is placed on the use and care

of hand tools. Related subjects, such as sources of supplies, ordering of materials, tools and equipment, and the use of hand tools in the classroom, will be developed through lecture, discussion, and readings.

I.A. 322 Industrial Arts in Early Childhood Education (2 sem. hrs.)

Future early childhood education teachers learn in this course how to handle tools and materials for activity programs in the nursery school, kindergarten, and first three grades.

I.A. X33 Comprehensive General Shop (2 sem. hrs.)

Elective for Industrial Arts Majors

This course has been designed to permit the student to make a practical application of the principles and philosophy of the general shop. The program for each student will be individually planned, making use of the entire laboratory and facilities.

I.A. 312 Industrial Arts in the Elementary School (2 sem. hrs.)

Acquainting and assisting prospective teachers in the use of tools and materials in activity programs through the elementary grades, this course instructs in tool processes, various media, and their use, thus helping children live, work, and play more intelligently in our industrial society.

I.A. 435 Elementary School Industrial Arts (2 sem. hrs.)

This course has been designed to develop the ability for critical thinking, planning, problem solving in construction, skill in the use of hand tools, safety in the use of tools, thrift and economy in the use of materials, as well as an appreciation of craftsmanship.

Activities within the course are weaving, basketry, copper repress, art metal, copper enameling, woodwork, the construction of visual aids and many other interesting activities.

HEALTH AND PHYSICAL EDUCATION

The average person takes health for granted and interprets it in terms of freedom from disease. This narrow interpretation in no way implies the positive state of well being which enables the individual to work and to play at his best with least strain. Throughout the courses in health and physical education, the purpose is to assist the student to realize his optimal health and efficiency so that he may be able to contribute much to life and to get much from it. The fortunate teacher who possesses abundant good health is a financial asset to his school system. He is likely to be emotionally stable, and he has the ability to teach health and physical efficiency by example.

The physical education program complements the health program in terms of physical, mental, social, and emotional development. Through a varied and well-balanced program of conditioning exercises, games, dances and sports, the student is prepared professionally as well as oriented to interests and skills for the worthy use of leisure time.

Health Ed. 101-102 Physical and Mental Health (4 sem hrs.)

A background of scientifically accurate health information, realistic criticism of various panaceas, and emphasis on positive health through planning and practicing a wholesome program of living is given in this course. The course furnishes experiences for the potential teacher to find out about himself and his health needs and to act accordingly.

Health Ed. X10 School, Community Health, and Safety Education (2 sem. hrs.)

Historical backgrounds, philosophy, objectives, methods, sources, program building, and a review of research are major areas of study. By lectures, discussions, reports, and extensive use of community resources, a knowledge and appreciation of this vital phase of education is developed. The course is delimited to the interests and needs of the elementary and junior high school child.

Health Ed. X11 First Aid and Accident Prevention (2 sem. hrs.)

The ability to render first aid in emergency situations is a requisite for both teaching and Civil Defense programs. Home, school, and community accident experiences reflect need. Students will be eligible for the American Red Cross Standard First Aid Certificate. (A. R. C. Instructors are invited to assist on a non-credit basis.)

Ph. Ed. 101-102 Organized Recreation (2 sem. hrs.)

Conditioning exercises, games, sports, and dance forms adapted to the interests and needs of both men and women are offered. Competencies in the fundamental skills of individual, dual, and team activities are stressed. Students are prepared and encouraged to participate in the intramural and sports club program.

Ph. Ed. 201-202 Rhythmical Recreation (Women) (2 sem. hrs.)

Basic dance forms—folk, square, social, and modern dancing—constitute the major activities. Experience in teaching simple rhythms suited to the several grade levels is offered as a culminating activity.

Ph. Ed. 201-202 Recreation (Men) (2 sem. hrs.)

This course has a two-fold objective: (1) the extension and reinforcement of selected sports skills as presented in PH. ED. 101 and 102, and (2) the development of methods and materials suited to the sports interests of pre-adolescent and adolescent boys. Special attention is given to criteria for selection of activities, safety factors, techniques of presentation, and the analysis of performance. Leadership skills are developed through practice teaching.

Ph. Ed. 311 Physical Education in the Elementary School (2 sem. hrs.)

Through a laboratory workshop approach using classroom, gymnasium, and outdoor play-space situations, methods and materials are developed for the several grades. Each student is afforded opportunity for leadership at the grade level of his choice. The total experience reflects a well-balanced program. A knowledge of the philosophy, objectives, and principles of physical education prepares the student to cooperate effectively with the specialist.

Ph. Ed. 32I Play and Rhythm Activities in Early Childhood Education (2 sem. hrs.)

Elective for Early Childhood Education Majors

This course is designed to give the prospective nursery school teacher an understanding of creative and dramatic activity as it relates to play and rhythmic responses of young children. It will further cover progressions to and presentation of games of low organization and rhythmic activities for the kindergarten and primary teacher with stress on kinds of movement desirable for each group. The student will be provided with a knowledge of materials available for these types of activities.

Ph. Ed. X10 Outdoor Education (2 sem. hrs.)

Close association with children in a camp environment represents a most valuable experience for the prospective teacher. Various camps and camp programs are studied. Particular emphasis is placed on the role of the camp counselor. Leadership, techniques and campcraft skills are reinforced through trip planning and practical experiences.

MATHEMATICS

Mathematics is a universal language developed by man to describe and organize his ideas about number. This language, with its own complete set of symbols, is woven through every strand of our culture. Indeed, the advance of civilization throughout the world has kept pace with progress in mathematical thinking.

Society delegates to the teacher a large role in the education of the young to understand and use numbers. It follows that the school curriculum of the elementary school, the junior high school, and the senior high school must allow a substantial amount of time for the mastery of that mathematics which is essential for good citizenship. For each person the road to the mastery of number should be the same creative experience it was for those who first created it.

He who plans to teach will require a background of mathematics beyond the minimal program for everyday living. How to use the mathematics of the more common branches is not enough. He must recognize a mathematical situation and be able to cope with it creatively. He should be able to interpret the wide variety of mathematics found in the professional books and journals. Further, he should develop an appreciation of the beauty of mathematics as an expression of a high form of creative thinking. In short, if he is to be a fine person and an able teacher, he must know far more mathematics than he is expected to teach.

Math. 103 General Mathematics (2 sem. hrs.)

Required for Early Childhood Education, General Elementary, and All Secondary Majors Except Mathematics Majors

Historical and current computational procedures for the fundamental processes in the light of the place-value and scientific-notation concepts of our number system with methods for making sensible checks on the accuracy of these procedures; problem solving with whole numbers, fractions, decimal fractions, and percents; numbers other than ten for the base of a number system; measurements and procedures for finding sides, areas, and volumes of geometric figures are major emphases in this course.

Math. 104 Descriptive Statistics (2 sem. hrs.)

Required for All Majors Except Junior High School Mathematics Competency.

This introduction to statistics develops various ways of organizing data in a meaningful manner. Graphs, measures of central tendency and variability, correlation, and the practical application of the normal curve are the major features presented.

Math. 132 Applied Mathematics (2 sem. hrs.)

Required for Industrial Arts Majors

This course will develop some understanding of mathematics as a language, essential manipulative skills, and an appreciation of their use in the various areas of the industrial arts program.

Math. 161 Basic Mathematics (2 or 3 sem. hrs.)

Required for All Junior High School Competencies (3 sem. hrs.); for Secondary Mathematics Majors (2 sem. hrs.)

This course is primarily concerned with strengthening and extending the student's arithmetical understandings and skills. Major topics covered are history and development of our number system; number bases other than the base of ten; relation of algebra to arithmetic; approximate computation, the significance of measurements and scientific notation; investigation of the "why" behind various operations in arithmetic; and problem solving. Applications are made to many fields: business engineering, shop, fine arts, music, the sciences, and the home.

Math. 162 Descriptive and Inductive Statistics (3 sem. hrs.)

Required for Junior High School Mathematics Competency

Presenting various ways of organizing data in a meaningful manner, this course includes graphs, measures of central tendency and variability, correlation, and the intelligent use of the normal curve, as the major statistics presented. A few measures of the more important sampling statistics will also be studied. Most applications are drawn from education, psychology, business, and industry.

Math. 171 College Algebra (4 sem. hrs.)

Required for Secondary School Mathematics Majors

This course covers such major areas as functions, solutions of various types of algebraic and trigonometric equations, logarithms, the binomial theorem, complex numbers, progressions, combinations, and probability. A balance will be maintained between emphasis upon skills and upon understandings and problem solving.

Math. 172 Analytical Geometry (4 sem. hrs.)

Required for Secondary School Mathematics Majors

A study of algebraic geometry including such topics as Cartesian coordinates, loci of equations including the straight line, the circle, parabola, and ellipse; translation and rotation; tangents and normals; and polar coordinates. This course provides background material for the calculus and for teaching the newer types of mathematics now being given in the eleventh and twelfth grades.

Math. 261 Mathematical Analysis I (4 sem. hrs.)

Required for Junior High School Competencies

This course includes an elementary discussion of the "sets" of numbers in our complex number system; the application of numbers to the field of measurement with a discussion of the errors involved; pro-

gressions with applications to annuities; combinations and probability; functional relations expressed in tables, graphs, and equations; and the concept of direct and inverse variation found in science and mathematics. Many practical examples are given throughout the course.

Math. 262 Mathematical Analysis II (4 sem. hrs.)

Required for Junior High School Mathematics Competency

This second half of the *Analysis* course includes the study of circular functions; plane trigonometry; elementary analysis of first and second degree equations involving some of the major elements of analytical geometry; and a brief survey of the concepts of differentiation and integration as treated in the calculus. Numerous concrete problems are used in the course.

Math. 271 Calculus I (4 sem. hrs.)

Required for Secondary School Mathematics Majors

This course emphasizes the meaning and use of the derivative and the differentials, as well as facility in the computation of the derivative of algebraic and transcendental functions. Applications of the derivative in terms of the form and properties of curves, problems in maxima and minima, finding roots of equations, tangents and normals, radius of curvature, and the theorem of the mean value are presented.

Math. 272 Calculus II (4 sem. hrs.)

Required for Secondary School Mathematics Majors

The use of integration and its application to practical problems in geometry and science. Such topics as finding the areas enclosed by plane curves, length of curves, areas and volumes of solids of revolution, fluid pressure, work, and series are covered.

Math. 312 Arithmetic in the Elementary School (3 sem. hrs.)

Required of All General Elementary Majors and of the Junior High School Mathematics Competency

In this course in the teaching of meaningful arithmetic in the elementary school, Grades I through VI, the development of number concepts according to logical, psychological and social criteria will be stressed. The following topics will be studied: the readiness program; the role of pupil discovery and demonstration; the use of manipulative materials; the rationalization of algorithms; problem-solving; planning units of instruction; evaluations of pupil textbooks, and the evaluation of instruction. The findings of research will be presented on the various topics discussed.

Math. 322 Arithmetic in Early Childhood Education
(2 sem. hrs.)

Number concepts and fundamental processes suitable for the child in the nursery, kindergarten or primary grades are taught. Auditory, visual, and concrete aids for incidental and planned situations to develop the child's quantitative sense as a functional part of his everyday and school activities are also studied.

Math. 371 Field and Laboratory Mathematics (3 sem. hrs.)
Required for All Junior High School Competencies and Secondary School Mathematics Majors

Interesting applications of mathematics useful in enriching the teaching of junior and senior high school mathematics are presented. Various instruments including the level, transit, sextant, angle mirror, clinometer, hypsometer, altimeter, and plane table are used in the laboratory and field work which includes the finding of latitude, locating the meridian, finding heights, making indirect measurements, and the making of maps. Practical applications rather than rigorous mathematical derivations characterize the approach used.

Math. 372 Modern College Geometry (3 sem. hrs.)
Required for Secondary School Mathematics Majors

This course includes an introduction to the more important theorems of modern college geometry with attention to the professional treatment of the content. The more powerful methods and techniques for solving original exercises will be examined.

Math. 462 Mathematics in the Junior High School
(3 sem. hrs.)

This course presents the objectives, the curriculum, and methods of teaching mathematics in the junior high school. The larger areas covered include arithmetic in grades seven and eight, general mathematics, and first year algebra. Emphasis throughout will be on the building of concepts, development of the necessary skills, and the acquisition of problem solving ability.

Math. 470 Teaching Secondary School Mathematics
(4 sem. hrs.)

Required for Secondary School Mathematics Majors

Methods of teaching the currently recognized branches of secondary school mathematics are studied in relation to the subject and integrated from a professionalized point of view. A study is also made of textbooks, tests, courses of study, and the findings of research upon the various areas.

Math. 471 Mathematical Statistics (4 sem. hrs.)

Required for Secondary School Mathematics Majors

This is an introductory course covering the main topics in statistics. Topics included are types of data and types of measurement; graphical representations; measures of central tendency and dispersion; moments; the binomial, Poisson, and normal distributions; linear regression and correlation; and elements of sampling theory and statistical inference.

Math. 472 History of Mathematics (3 sem. hrs.)

Required for Secondary School Mathematics Majors

A survey of the origin and development of the major concepts and algorithms found in elementary mathematics from simplest number work through the major developments of the calculus is included. Emphasis will be placed upon the material suitable for the enrichment of the teaching of mathematics in the junior and senior high school.

MUSIC

The course offerings in this department are designed to prepare students in the several curricula to carry on a significant and interesting program of music activities with children.

The sequential courses of the sophomore, junior, and senior years aim to build the basic knowledge and skills which make for personal musicianship; to give a background of experience in the music literature of the various epochs of music history; and to provide participation in activities and experience with materials and techniques that vitalize the teaching of music in the classroom.

Because of the important place of music in early childhood education, candidates who wish to major in this curriculum should be able to sing on pitch and should have a working knowledge of the piano. Courses are offered in voice and piano to develop competence in these fields.

The extracurricular organizations sponsored by the department offer all students an opportunity for creative expression and personal growth through participation in a variety of choral and instrumental activities.

• **Music 201-202 Fundamentals of Music (4 sem. hrs.)**

Designed to give the student some degree of individual power and musicianship, this course provides for the study of music notation and theory through functional experiences in singing songs, playing, listening, and writing music.

Music 311 Music in the Elementary School (2 sem. hrs.)

In this course students study music education programs for children. There is direct participation in singing and rhythms; in playing and reading music with simple melody instruments; and in use of the autoharp, rhythm instruments and recordings. A repertoire of children's songs will be acquired during the course, and some experience will be given in conducting songs for classroom and assemblies. Students will examine, use, and evaluate books and materials in the field of music education.

Music 321 Music in Early Childhood Education: Part I (2 sem. hrs.)

Simple music, built around children's interests and used for class and family fun, stimulates growth in understanding and appreciation. In this course the music activities and materials for the nursery school, kindergarten, and primary grades will be so presented as to help all students make music a part of the daily living of children.

There is direct participation in singing and rhythmic activities; in playing and reading music with simple melody instruments; and in using the autoharp, rhythm instruments, and recordings. The use of the piano for rhythmic and harmonic experience is included. A repertoire of children's songs will be acquired during the course.

Music 371-372 Music Appreciation (4 sem hrs.)

Required for All Secondary School Majors

This course for majors in secondary school education offers a broader and deeper study of the content described in Music Appreciation 402.

Music 402 Music Appreciation (3 sem. hrs.)

This is a course for the understanding and enjoyment of music. Representative compositions, composers, forms and styles, and elements of musical structure will be studied. Activities include directed listening, readings, lecture discussions, score reading, and attendance at concerts and other music events.

Music 421 Music in Early Childhood Education: Part II (2 sem. hrs.)

This second course in Music in Early Childhood Education is designed to develop greater competence and security in the activities introduced in Part I.

This course will be conducted so as to give the students extensive song and rhythm repertoire for young children; experience in pre-

senting, conducting, and accompanying songs for classroom and assembly; opportunity for creative work in all areas; wide acquaintance with recordings, audio-visual aids, books, and other resources which contribute to musical growth; and a knowledge of how to use these to enrich the music experiences of children in the nursery school, kindergarten, and primary grades.

Musix X10 Elementary Piano Instruction (Part I) (2 sem. hrs.)

This course is a beginning piano course for non-music majors to develop general keyboard facility through sight reading, harmonizing well-known melodies, and the performance of easier classics. Techniques for accompanying children's songs and community singing are presented.

Music X11 Elementary Piano Instruction (Part II) (2 sem. hrs.)

Part two of Elementary Piano Instruction continues to develop skill in harmonization, using well known melodies and songs from the school songs series. Music selected will include school marches, pieces for rhythmic games, easy classics, and community songs. Elementary Piano Instruction, Part I, or its equivalent, is a prerequisite.

Music X12 Voice Class (Part I) (2 sem. hrs.)

Group work in classes is provided. Opportunity is provided also for individual attention and performance. Study of voice, production, the principles of singing, and song material for development toward performance are component parts of this course.

Music X13 Voice Class (Part II) (2 sem. hrs.)

Group work is continued with opportunity for individual attention and performance. Continued study of the principles of singing and advanced solo material will be featured.

A prerequisite is Music 404 or preparation satisfactory to the instructor.

SCIENCE

In the long struggle of man to maintain and improve his life in his universe, the work of science began only recently. As a method of understanding and controlling the environment in order to meet human needs, science has been revolutionary. Primarily it is a means of testing thought and predicting what the outcome of action will be. The growth of a great body of scientifically tested knowledge has built civilization as we know it and put man increasingly in control of the forces that govern his life. Educated persons, and particularly those

who propose to teach, must have a substantial acquaintance with the method and the findings of science, upon which modern civilization is built.

The teacher, as a member of the intellectual leadership in his community, must have a generous cultural background of natural science. The teacher as a professional guide to children must, in addition, gain familiarity with the much larger scope of usable science content and activities that is appropriate to the intellectual and cultural growth of children at their own levels. In addition, the method of science is increasingly used in his own profession of education, which is one of the youngest of the newly developed social sciences. A good scientific background lays the basis for a scientific attitude toward human behavior and education.

In the courses that follow for the freshman and sophomore years, the effort has been to economize the time of the students to the greatest extent compatible with providing an essential and sound background in the natural sciences.

In the junior year when the student begins an intensive and practical experience in the field, courses in early childhood education, elementary, and junior high school prepare the young teacher to recognize and use the many opportunities in the pupil's immediate environment for developing scientific method and knowledge at his level.

Science 101-102 Introductory Biology (4 sem. hrs.)

The course introduces the student to the nature of living forms, their interdependencies, and their adjustments to their physical environment. The fundamentals of structure and function are dealt with in such primary processes as respiration, digestion, circulation, excretion, the control systems, and reproduction. Heredity and improvement of living things by selection, hybridization, and mutation are considered. Individual projects will be selected by the students.

Science 161-162 Fundamentals of Biological Science (6 sem. hrs.)

This course is provided for the junior high school science competencies to look broadly and with considerable depth at the great generalizations of the biological world. It is intended that a close view be taken of the modern developments in biological science. The greatest specific emphasis is on the process of the biological world with most applications viewed from the point of view of man. The idea of the ecological relationships between all living things and between the living and non-living world runs basic to all portions of the course.

Science 203-204 Introductory Chemistry (4 sem. hrs.)

The beginning student is introduced to the structure of matter and the laws that apparently govern its transformation. The course will involve the tools of chemistry, such as symbols, formulas, equations, computations; and the course will aim these tools at the types of chemical change, the types of natural substances, like acids, bases, salts, solutions, and organic compounds. The applications of chemistry in such areas as water, fuels, combustion, foods, medicine, sanitation, and the atmosphere will be studied. In these, the implications of chemistry for better living will be stressed.

Science 205-206 Introductory Physics (4 sem. hrs.)

This course is designed to furnish the beginning student with an understanding of the mechanical behaviors of matter and the several manifestations of energy, namely: heat, magnetism, electricity, light, sound, color, and motion. It also includes a study of the applications of the laws and principles that govern the transformation and control of these forms of energy in their historical context with due consideration for their impact upon social living and social change.

Science 207-208 Earth Science (4 sem. hrs.)

Three major and related aspects of earth study will comprise this course: (1) earth's relationship to the cosmic universe, (2) theories of earth's origin and process of its physical evolution, and (3) weather and climatic phenomena, that is to say, a limited study of astronomy, geology, and meteorology. Laboratory study will be a regular part of the course and will include direct field activities.

Science 231 Applied Science (2 sem. hrs.)

Required for Industrial Arts Majors

A presentation of the basic scientific theories and principles and a study of their application in our industrial society are component parts of this course. It will also include demonstrations, lectures, and experimentation.

Science 261-262 Fundamentals of Physical Science (6 sem. hrs.)

The junior high school competencies will have experience and lecture-demonstrations pertinent to various aspects of matter and energy relationships, to atomic physics, mechanics in fluids and solids, as well as study in the areas of heat, sound, light, magnetic, and electronic aspects of the subject.

Science 311 Science in the Elementary School (3 sem. hrs.)

This course will start with such items as the origin and growth of the elementary science movement, a survey of curricula and present practices in the schools, a review of the children's literature in the field, and a study of the problems and techniques involved in adapting content to curriculum development and grade placement. The latter half of the course will be devoted to planning and demonstrating a series of instructional units that can be adapted to the various upper grade levels.

Science 361-362 General Chemistry (6 sem. hrs.)

This course for the junior high school science competency is designed to develop understanding of the natural phenomena related to chemical change in the physical and living world. Its principal agenda includes experiences and lecture discussion sessions in the theoretical, the physical, and the organic areas of chemistry.

Science 422 Science in Early Childhood Education (2 sem. hrs.)

The principal focus in the early stages of this course will be on the child as an explorer experiencing a limited but expanding environment. Pertinent to this design a review of the literature about the young child as a learner, about the methods of teaching, and about the types of program which are appropriate will be made. During the middle and later stages the course will consist of the presentation of first-hand experiences designed to challenge the pre-school and early school child.

Science 461 Junior High School Science (2 sem. hrs.)

Careful examination is made of the objectives of the school program to which science activities make an important contribution. Specific studies are made relative to 1) programing to fit individual differences, 2) the development of scientific attitudes, and 3) the development of understanding of, and skill in the use of, scientific methods of problem solving. A great deal of emphasis is placed on the improvisation of simple apparatus and materials. Experience is given in the teaching methods which seem appropriate to science instruction.

Science 464 Earth Science (4 sem. hrs.)

This course for the junior high school science competency is designed to develop understanding of 1) the evolution and structure of the earth's surface as conditioned by forces of gradation and aggradation and of volcanism and diastrophism, 2) mass analysis of the

atmosphere with reference to weather and climate, and 3) the relationship of the earth to the sun and other members of the solar system and to the universe of celestial bodies. Field experiences are planned for all three phases of this outline.

Science 551 Anatomy and Physiology of the Ear and Speech Mechanism (2 sem. hrs.)

Anatomy, physiology, and pathology are included in this course for those people who plan to assist the speech defective or the hard of hearing in training programs.

SOCIAL SCIENCE

In the development of its program, the social science department draws upon the methods, the materials, and the contributions to human knowledge of the fields of anthropology, economics, geography, history, political science, and sociology.

Throughout all the course offerings, which are concerned both with general education and preparation for citizenship within the general context of teacher education, members of the department continually stress the importance of broad principles and ideas rather than the accumulation of information. It is of the utmost importance that all teachers appreciate to the fullest our American heritage and the shared values of our Western tradition. The offerings of the department are organized within a universal framework, with the courses global in concept, humanistic in content, and democratic in perspective.

Soc. Sci. 103-104 History of Western Civilization (6 sem. hrs.)

By means of reading and discussion, students survey the historical development of modern civilization from early times. Special attention is given to cultural diffusion and integration and to institutions and ideas.

Soc. Sci. 203-204 United States History (6 sem. hrs.)

The basic institutions and ideas of the American people are studied from the viewpoint of contemporary issues.

Soc. Sci. 271-272 History of Eastern Civilizations (6 sem. hrs.)

Required for Secondary School Social Science Majors

An historical survey of the cultures and civilizations of India, China, Japan, and their neighbors, with particular stress on institutions and ideas, culture contact and diffusion.

Soc. Sci. 316 Fundamentals of Geography (2 sem. hrs.)

The purpose of this course is to provide a foundation for all phases of geography by stressing the influences of the physical environment. The subject matter includes major and minor land forms, bodies of water, and climate. Basic tools, methods, and concepts in the field are examined and applied.

Soc. Sci. 362 History and Social Science in Grades 5-9 (3 sem. hrs.)

Required for Junior High School Social Science Competency

The values and objectives of studies in history, geography, and social science in grades 5-9 are investigated in this course. Methods of teaching and curriculum organization for the appropriate age groups are developed in close association with the professional field experiences.

Soc. Sci. 366 Fundamentals of Geography (3 sem. hrs.)

This course is an expansion of Social Science 316 and is offered for three semester hours to those seeking social science competency in junior high school education.

Soc. Sci. 371 Principles of Sociology (3 sem. hrs.)

Required for Junior High School Competency and Secondary School Social Science Majors.

An analysis and application of the basic concepts and research methods of sociology will be undertaken. Culture, community, group behavior, and institutions will be treated.

Soc. Sci. 372 Teaching Secondary School Social Studies (3 sem. hrs.)

Required for Secondary School Science Majors

The value and objectives of programs in secondary school social studies are examined. Appropriate methods of curriculum organization and teaching are developed in interaction with professional field experience.

Soc. Sci. 373 World Politics (3 sem. hrs.)

Required for Secondary School Social Science Majors

Stability in the relations among nations is the focus of interest in this course. The state system and the balance of power, war in the pattern of international relations, suggest its subject matter.

Soc. Sci. 413 Regional Geography of North America (3 sem. hrs.)

This course is a study of the human adaptations to the varied habitats of North America, organized in terms of the professional needs of the teachers in elementary and junior high schools, with special stress on the conservation of human and natural resources.

Soc. Sci. 414 New Jersey History and Geography (2 sem. hrs.)

In this course a review of the significant features of New Jersey history, especially in relation to national history, a close examination of state government, and an analysis of the geographical setting of New Jersey are given.

Soc. Sci. 471 Growth of American Thought (3 sem. hrs.)

Required for Secondary School Social Science Majors

A treatment of the principal forms of and trends in American intellectual development from colonial times until today is presented in this course.

Soc. Sci. 472 Introduction to Economics (3 sem. hrs.)

Required for Junior High School Competency and Secondary School Social Science Majors

The fundamental ideas and materials of economics will be examined in an effort to stimulate an understanding of contemporary society and public policy in their economic aspects.

Soc. Sci. 473 United States Government and Politics (3 sem. hrs.)

Required for Junior High School Competency and Secondary School Social Science Majors

Systematic analyses of the principles and practices of democratic government and party politics in the United States on local, state, and federal levels constitute the subject matter of this course.

Soc. Sci. 474 The American Business System (3 sem. hrs.)

Required for Secondary School Social Science Majors

The modern corporation in its American setting and in its relationships to the other institutions of modern society defines the scope of this advanced course in economics.

SECTION V

Part-Time, Extension, and Graduate Program; Part-Time and Extension Division

The Part-Time and Extension Division offers a program to meet the needs not only of teachers-in-service who wish credit toward a degree but to all who desire courses for their personal and professional growth. Courses are offered in the late afternoons, evenings, and Saturday mornings in the college buildings at Union and off-campus in many communities in New Jersey. Such courses may be applied by graduates of two or three year curricula toward the bachelor of arts degree and by college graduates, on approval of their adviser, toward the master of arts degree. The undergraduate degree is offered in all majors regularly conducted in the college in residence.

The graduate degree is offered in the field of elementary education, education of the handicapped, early childhood education and administration and supervision in the elementary school. It is designed to prepare master teachers, administrators, and supervisors for the schools of New Jersey.

In the elementary education major, the fields of instruction include: education, English, fine arts, health education, industrial arts, mathematics, music, physical education, science and social science.

Courses are also offered for those whose major interests lie in early childhood education, fine or industrial arts education, or in cultural fields not especially related to the professional teacher. The offerings will meet the major interests of the following:

1. Elementary school principals.
2. Elementary school supervisors and administrators.
3. Elementary, nursery school, kindergarten-primary, and fine and industrial arts teachers; junior high school teachers; teachers of the mentally retarded, hard of hearing, and speech defective; and teachers in some of the areas in secondary education.
4. Those who are completing the requirements for the degree of bachelor of arts in early childhood, general elementary education, fine and industrial arts, junior high, and senior high school education.

5. Graduate students enrolled in courses leading to the degree of master of arts.
6. Teachers of handicapped children.
7. Secondary teachers desiring certification in the elementary field.
8. Former teachers who in the present emergency wish to return to the profession of teaching.
9. Liberal arts college graduates who are seeking their state elementary school certification.
10. Qualified high school graduates who wish to study for the bachelor's degree, with a major in Education, by attending evening classes. This would include high school graduates whose daytime employment or home responsibilities prevent their attending college during the day.
11. Others, not necessarily teachers, who are interested in cultural offerings.

Students who wish to secure the degree of bachelor of arts through the Part-Time and Extension Division may matriculate by filling in the necessary matriculation form, which can be secured at the extension office, and by the payment of the matriculation service charge of \$1.00. When courses have been completed in other institutions prior to matriculation, official transcripts of such courses must be submitted at the time of matriculation.

Student teaching regulations for non-matriculated students may be obtained from the part-time and extension office.

Students wishing to matriculate in the graduate program should consult the office of the chairman of the graduate program in the college building.

Tuition charges are as follows for both undergraduate and graduate students:

Eleven dollars (\$11.00) per semester point for any resident of the State of New Jersey.

Thirteen dollars (\$13.00) per semester point for any non-resident of the State of New Jersey.

There is a registration and service charge of fifty cents (\$.50) per semester per point for each student.

Tuition and service charges are payable at the time of registration. Make checks or money orders payable to Newark State College, Union.

A copy of *The Bulletin of the Newark State College: Part-time and Extension Division*, which lists all the course offerings and additional pertinent material, is available each semester by writing to the Director of the Part-Time and Extension Division, Newark State College, Morris Avenue, Union, New Jersey.

STATE CERTIFICATES AND DEGREES

All professional curricula at Newark State College lead to the degree of bachelor of arts. The degree is issued under the authority of the State Board of Education and is prerequisite to the granting of certificates to teach in the state.

The master of arts degree is awarded upon the completion of the various graduate curricula. At least half of the master's work must be completed in residence, which can be established by full attendance at summer sessions.

Limited teachers college certificates, appropriate to each of the curricula listed above, are granted by the State upon graduation from the college. Each certificate entitles the holder to teach in any of the grades and subjects covered by the curriculum in which he has been prepared.

All limited certificates as at present issued are valid for five years. After three years of successful teaching experience, a teacher may receive his permanent certification upon recommendation of the president of the college.

SUMMER SESSION

The summer session extends over a period of six weeks. Students in the summer session may apply credits so earned toward the appropriate certificates or degrees. These summer courses are open to undergraduate or graduate students; elementary and secondary school teachers; kindergarten-primary teachers; fine arts teachers, industrial arts teachers; principals and supervisors in elementary education or in special fields; and to others interested in cultural and personal growth. Graduates of any accredited state teacher-training institution desiring further certificate credits or candidacy for the bachelor of arts or master of arts degree are eligible to enroll. Those who have received their basic preparation in accredited teacher-training institutions in states other than New Jersey may also matriculate for credit toward advanced certificates or degrees.

For further information concerning the summer session communicate with the Director of the Summer Session Newark State College, Morris Avenue, Union, Union County, New Jersey.

MARION L. PARSONS *Assistant Registrar and Alumni Secretary*
 JACK E. PLATT *Chairman, Department of Music Librarian*
 JOSEPH W. RENDELL *Chairman of the Curriculum*
 EDNA DE BOLT SALT *for Early Childhood Education*
 HERBERT W. SAMENFELD *Assistant Director of Student Personnel*
 DOUGLAS W. TATTON *Chairman, Department of Fine and Industrial Arts*
 LENORE VAUGHN-EAMES *Chairman of the Graduate Studies*
 HARRIET E. WHITEMAN *Dean of Students*
 WILLARD E. ZWEIDINGER *Chairman, Department of Physical Education*

MEDICAL STAFF

SYLVIA BECKER, M. D. *Physician*
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