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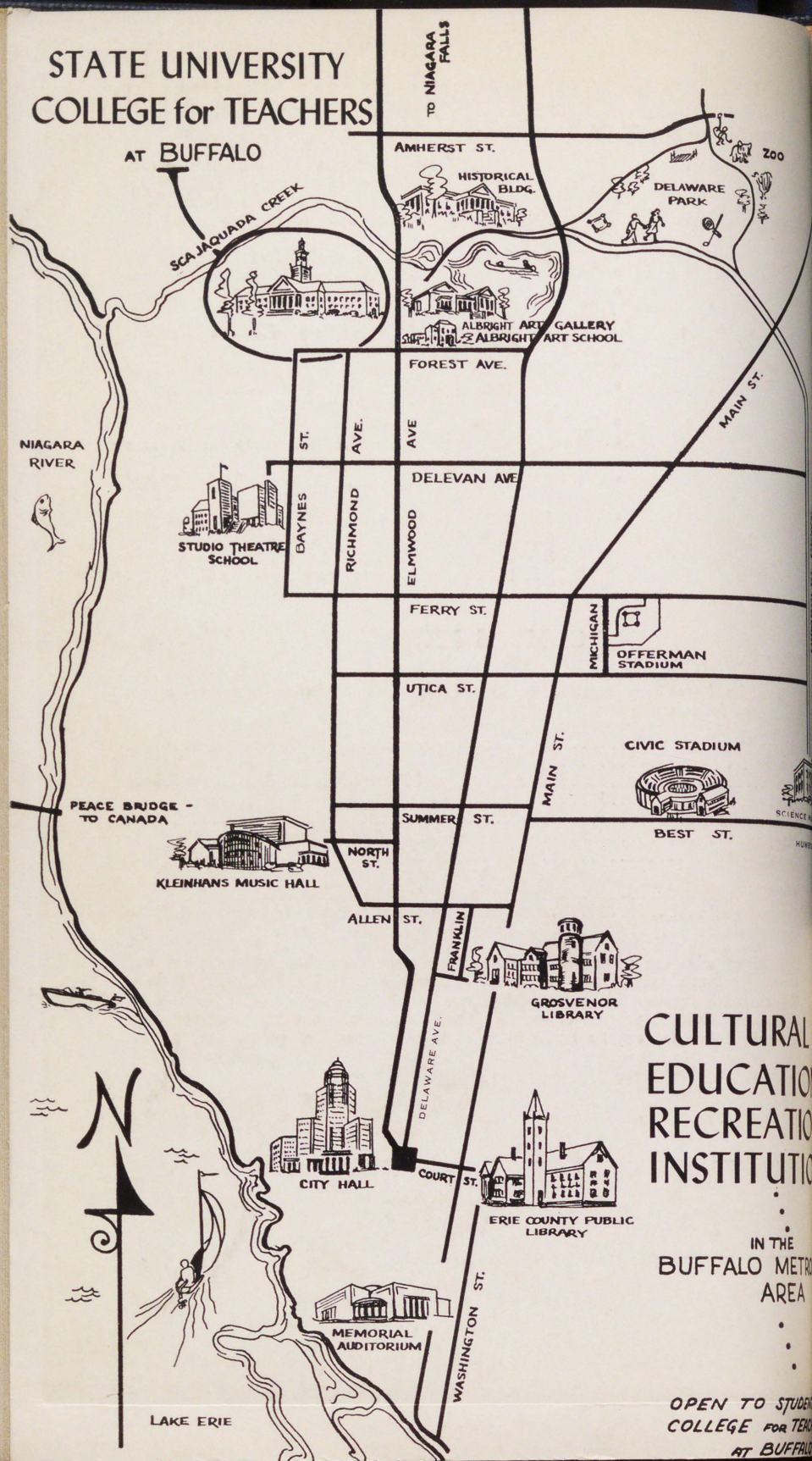
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STATE UNIVERSITY COLLEGE for TEACHERS

AT BUFFALO



CULTURAL
EDUCATION
RECREATION
INSTITUTION

IN THE
BUFFALO METRO
AREA

OPEN TO STUDENTS
COLLEGE for TEACHERS
AT BUFFALO



State University of New York

College for Teachers
BUFFALO
BULLETIN

extension graduate
catalog 1955
1956

STATE UNIVERSITY OF NEW YORK

LIBERAL ARTS COLLEGE

Harpur College at Endicott

MEDICAL COLLEGES

Downstate Medical Center in New York City

Upstate Medical Center in Syracuse

TEACHERS COLLEGES

College for Teachers at Albany

Teachers College at Brockport

College for Teachers at Buffalo

Teachers College at Cortland

Teachers College at Fredonia

Teachers College at Geneseo

Teachers College at New Paltz

Teachers College at Oneonta

Teachers College at Oswego

Teachers College at Plattsburgh

Teachers College at Potsdam

OTHER PROFESSIONAL COLLEGES

College of Forestry in Syracuse

Maritime College at Fort Schuyler

College of Ceramics at Alfred University

College of Agriculture at Cornell University

College of Home Economics at Cornell University

School of Industrial and Labor Relations at Cornell University

Veterinary College at Cornell University

AGRICULTURAL AND TECHNICAL INSTITUTES

Agricultural and Technical Institute at Alfred

Agricultural and Technical Institute at Canton

Institute of Agriculture and Home Economics at Cobleskill

Agricultural and Technical Institute at Delhi

Agricultural and Technical Institute at Farmingdale

Agricultural and Technical Institute at Morrisville

LOCALLY-SPONSORED TWO-YEAR COLLEGES

(Under the program of the State University of New York)

Auburn Community College at Auburn

Broome County Technical Institute at Binghamton

Erie County Technical Institute at Buffalo

Fashion Institute of Technology at New York City

Hudson Valley Technical Institute at Troy

Jamestown Community College at Jamestown

Mohawk Valley Technical Institute at Utica

New York City Community College of Applied Arts and Sciences

Orange County Community College at Middletown

Westchester Community College at White Plains

STATE UNIVERSITY OF NEW YORK

COLLEGE FOR TEACHERS
BUFFALO

BULLETIN

August 1955

EXTENSION--GRADUATE CATALOG
1955--1956

GRADUATE DIVISION

and

UNDERGRADUATE CLASSES

STATE UNIVERSITY COLLEGE FOR TEACHERS BULLETIN
VOLUME XXIII NUMBER 4

One of Four Publications Issued Four Times Each Year; March, April, August, and October by State University College for Teachers, Buffalo 22, N. Y.

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STATE UNIVERSITY OF NEW YORK

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THE COLLEGE LOCAL COUNCIL

	Term Expires
REID S. MOULE <i>Chairman</i>	1960
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NELSON M. GRAVES	1956
HAMILTON B. MIZER	1958
MRS. JAMES H. RIGHTER	1963
MRS. JEAN B. ROGERS	1959
STANLEY P. TURKIEWICZ	1957
MRS. HERBERT J. VOGELSANG	1962
JOHN P. WICKSER	1955

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MORTON R. LANE, B.S.	<i>College Business Manager</i>

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RALPH HORN, Ph.D.	Dean of the College
ROBERT E. ALBRIGHT, Ph.D.	Director of Extension
	Director of Graduate Division
FRANCES G. HEPINSTALL, M. S.	Librarian
MARY M. MAY, B.A.	Acting Registrar
MORTON R. LANE, B.S.	College Business Manager

Saturday — Tuesday — Wednesday

CALENDAR 1955-56

First Semester:

Saturday, September 17 — Registration for all classes (Saturday — Tuesday — Wednesday)

Saturday, September 24 — Last day for registration and payment of fees.

Saturday, November 26 — Thanksgiving recess.

Saturday, December 24 — through Saturday, December 31, Christmas recess.

Saturday, January 7 — Classes resume.

Saturday, January 21 — Final examinations.

Second Semester:

Saturday, February 4 — Registration for all classes, (Saturday — Tuesday — Wednesday)
 Saturday, February 11 — Last day for registration and payment of fees.
 Saturday, March 31 through Saturday, April 7 — Easter recess.
 Saturday, April 14 — Classes resume.
 Saturday, June 2 — Final examinations.

Commencement

Sunday, June 10 — Baccalaureate	4 P.M.
Monday, June 11 — Commencement	10 A.M.

On-Campus and Off-Campus Courses

All Undergraduate Extension fees \$10.00 per credit hour
All Graduate Extension fees \$12.50 per credit hour
Fees for both On-Campus and Off-Campus courses are payable at registration. No refunds made unless course is discontinued.

Faculty members have been instructed to require receipt for payment of fees or veterans authorization slip and class enrollment card from students before completing class registration. No student will be admitted after the second class session until these conditions are fulfilled.

GENERAL INFORMATION

1. Teachers in service and properly qualified undergraduates will be admitted to Extension courses.
2. A student wishing to become a candidate for a degree should secure an evaluation of his academic record and proposed program from the Registrar to assure proper accrediting and satisfactory course selection.
3. Credit granted for the completion of any course is subject to the approval of the Registrar when applied to the specific program of any student.
4. Extension credit is transferable to other academic institutions in accordance with the regulations of the individual college or university concerned.
5. Off-Campus courses will be organized in convenient centers when requests are sufficient to establish them. Teacher groups interested in such courses should inform the Director of Extension as soon as possible.
6. A minimum registration of twelve students will be required for the continuance of any proposed Extension class.*
7. Graduates of a three-year curriculum of this College should note that Off-Campus credit is not acceptable as part of the residence requirements of the Bachelor of Science degree.
8. An application for graduation is required of each student of all divisions who will complete the requirement for the Bachelor of Science or Master of Science degree. This application must be filed with the Registrar before November 1 if graduation is expected in January or June of the academic year; it must be filed before the close of Summer Session if requirements are to be completed by that time. The College assumes no responsibility for the graduation of students who omit this application procedure.
9. The right is reserved to make any necessary alterations in the course offerings listed in this catalog without notice.
10. Any students who have questions relative to courses, requirements or other matters pertaining to Extension work, should write to R. E. Albright, Director of Extension, State University College for Teachers, Buffalo 22, N. Y.

* Exceptions will be made in some cases essential for meeting graduation requirements.

REGISTRATION PROCEDURES

FIRST SEMESTER

Saturday, September 17 Registration Day
All On-Campus Extension Classes
Saturday—Tuesday—Wednesday

8:45-9:15 A.M. Secure instruction sheet in foyer of Administration Building.

Graduate students follow directions as indicated.

Undergraduate students attend Assembly in Room Ad. 200 to receive announcements and to check enrollment of classes to be offered. (Absence from this Assembly may cause the discontinuance of the class you wanted due to insufficient registration.)

9:15-11:00 A.M. Registration and payment of fees* for all On-Campus Courses. (Saturday—Tuesday—Wednesday).

11:00-11:55 A.M. First hour Saturday classes meet.

12:00-12:55 P.M. Second hour Saturday classes meet.

SECOND SEMESTER

Saturday, February 4 Registration Day
All On-Campus Extension Classes
Saturday—Tuesday—Wednesday

8:45-9:15 A.M. Secure instruction sheet in foyer of Administration Building.

Graduate students follow directions as indicated.

Undergraduate students attend Assembly in Room Ad. 200 to receive announcements and to check enrollment of classes to be offered. (Absence from this Assembly may cause the discontinuance of the class you wanted due to insufficient registration.)

9:15-11:00 A.M. Registration and payment of fees* for all On-Campus Courses. (Saturday—Tuesday—Wednesday).

11:00-11:55 A.M. First hour Saturday Classes meet.

12:00-12:55 P.M. Second hour Saturday Classes meet.

* Pay no fees until classes desired are assured of continuance — no refunds can be made this year.

GRADUATE DIVISION — EXTENSION SESSION

1955 — 1956

Graduate Curricula

Graduate courses lead to the Master of Science degree with majors in Art Education, Education for Exceptional Children, Elementary Education, Home Economics, and Industrial Arts.

Graduate work limited to Summer Session and Extension Classes

At present no graduate work is offered during the Regular Session. Graduate schedules will be planned so that requirements for the Master of Science degree may be completed by attendance at five Summer Sessions. This time may be shortened by registration in Extension Classes.

Admission Requirements

Applicants meeting the following requirements are eligible for admission to the Graduate Division:

A. An applicant holding an *approved* Bachelor's Degree and eligible to teach in the elementary school or in a field of specialization in New York State. (An *approved* Bachelor's degree is one granted by a teachers college, liberal arts college, or university which is accredited by the American Association of Colleges for Teacher Education, an appropriate regional accrediting agency, a State Board of Education, or a State University.)

B. An applicant holding a teaching certificate from another state. (Completion of the Master's degree requirements does not guarantee New York State certification. Applicants interested in New York State certification should secure an evaluation of credit and a statement of prescribed work necessary from the Office of Certification, State Education Department, Albany, N. Y.)

C. An applicant having an acceptable academic and teaching record. (A student must be able to present an undergraduate scholastic average of 2.3 or higher, an acceptable teaching record testified by a confidential statement from the administrator of the school wherein employed, and recommendations concerning academic and personal qualifications supplied by three persons in a position to make valid statements.)

Admission Procedures

A. Complete admission blank available from Director of Graduate Division with data required.

B. Return blank before May 1, for registration in Summer Session, before September 1st for registration in first semester, and before January 1st for registration in second semester Extension program.

C. Provide official transcript from college which granted degree, (not necessary for graduates of this college).

Admission to Candidacy

Filing an application for admission to candidacy is the personal responsibility of each admitted student after he has completed a minimum of six hours. *He must apply for candidacy at the completion of twelve hours.*

Admission to Candidacy Depends Upon:

A. A cumulative average of "B" or better in courses presented for graduate credit. No work of "D" grade will be accepted.

B. A recommendation from the adviser of the candidate, the Director of the division, or (in the case of Elementary Education students) the Director of the Graduate Division.

C. A comprehensive written examination may be required by the Graduate Council upon the recommendation of the student's adviser or Director of the division in which application is made.

Requirements for Master of Science Degree

A. Completion of thirty-two semester hour program of graduate courses.

A limited amount of transfer credits can be accepted for courses taken at another college:

1. If they are evaluated as being equal in scope and content to those offered by this college.
2. If they form a coherent part of the required program of study.
3. If they have been completed within seven years prior to registration at this college.

B. Completion of residence requirements. A course shall satisfy the requirements for residence if it is offered on the Campus, within the city of Buffalo, at a College Camp, or at a branch established by the College.

1. For graduates of this college — a minimum of twenty hours *in-residence* out of the total thirty-two.
2. For graduates of another college — a minimum of twenty-four credit hours *in-residence* out of the total thirty-two.

C. Completion of all course work within six years. Five summer sessions of six weeks each is regarded the usual period of attendance. However, this time may be shortened by registration in Evening and Saturday Extension Classes.

1. Students holding full-time teaching positions are limited to a maximum of four credits per semester or eight per academic year in Extension Classes. No credit will be given for work taken beyond this maximum at this college or elsewhere.
2. In summer session students are permitted to earn a maximum of two credits for a two-weeks program, six credits for a six-week program, and eight credits for an eight-weeks program.

Special Students

Students not intending to apply for admission to candidacy may register for courses in the Graduate Division, limited to a total of 12 hours.

Registration Fees

Graduate Division fees are \$12.50 per credit hour.

GRADUATE CURRICULA

ART EDUCATION

Total requirements 32 Semester Hours

COURSES IN TECHNICAL AND RELATED FIELDS .. 20-23 SEM. HRS.

Technical Courses:

- Art 501 Workshop in Art Education Materials, Processes, and Procedures 3 Sem. Hrs.
Art 503 Workshop in Using the Visual Language 3 Sem. Hrs.
Art 506 Seminar in Contemporary Art 2 Sem. Hrs.
Art 507 Graduate Studio in Drawing, Painting, Graphic Arts 2-6 Sem. Hrs.
Art 508 Graduate Studio in Design and Spatial Organization 2-6 Sem. Hrs.
Art 509 Graduate Studio in Crafts 2-6 Sem. Hrs.
Art 510 Graduate Studio in Photography 3 Sem. Hrs.
Art 512 Graduate Studio in Sculpture 3 Sem. Hrs.
Art 526 Special Study 2-4 Sem. Hrs.
Graduate Courses in the Practical Arts 2-6 Sem. Hrs.

Courses in Related Fields:

- Art 502 Art Education Today 3 Sem. Hrs.
Art 504 Seminar in Art in Human Affairs 2 Sem. Hrs.
Art 505 Seminar in Art Education 3 Sem. Hrs.
Art 526 Special Study 2-4 Sem. Hrs.
Graduate Courses in Psychology and Education 2-6 Sem. Hrs.

Research:

- Ed. 575 Research Techniques 2 Sem. Hrs.
Art 550 Project 4 Sem. Hrs.
Art 525 Master's Thesis 6 Sem. Hrs.
(Each candidate, after a conference with his adviser, may select one of the above requirements. Credit may be applied to the technical or related area, or may be divided between them depending upon the nature of the work done.)

GENERAL EDUCATION GRADUATE ELECTIVES 9-12 Sem. Hrs.

Graduate courses in Music, English, Social Studies, Science, and Mathematics. By advisement.

ELEMENTARY EDUCATION

Total requirements 32 semester hours

REQUIRED PROFESSIONAL COURSES 9 SEM. HRS.

- El. Ed. 500 Workshop in Elementary Education 6 Sem. Hrs.
El. Ed. 501 Seminar in Elementary Education 3 Sem. Hrs.

REQUIRED COURSES IN GENERAL EDUCATION 12 SEM. HRS.

- English and/or Social Studies 6 Sem. Hrs.
General Education Electives 6 Sem. Hrs.

RESEARCH	2-6 SEM. HRS.
Ed. 575 Research Techniques	2 Sem. Hrs.
El. Ed. 550 Project	4 Sem. Hrs.
El. Ed. 525 Thesis	6 Sem. Hrs.
(Each candidate, after a conference with his adviser, may select one of the above requirements.)	
UNRESTRICTED ELECTIVES	5-9 SEM. HRS.
Maximum of 16 hours in education courses permitted including research, project, or thesis.	

ELEMENTARY PRINCIPALSHIP OR SUPERVISION CERTIFICATION

Total requirements 32 Semester Hours

Experienced teachers desiring the elementary school principal's provisional certificate should complete the bachelor's degree and four to six semester hours in El. Ed. 503 and 504. Candidates for the permanent certificate must complete the bachelor's degree and thirty hours in approved graduate courses including, in addition to El. Ed. 503 and 504, four to six hours in El. Ed. 507 and 520.

Experienced teachers desiring the elementary school supervisor's provisional certificate should complete the bachelor's degree and six semester hours in El. Ed. 530 and 531. Candidates for the permanent certificate must complete an additional twenty-four semester hours in approved graduate courses.

REQUIRED PROFESSIONAL COURSES	12 SEM. HRS.
El. Ed. 500 Workshop in Elementary Education	6 Sem. Hrs.
El. Ed. 504 Elementary School Administration	3 Sem. Hrs.
El. Ed. 531 Elementary School Supervision	3 Sem. Hrs.
REQUIRED COURSES IN GENERAL EDUCATION	8-10 SEM. HRS.
English and/or Social Studies	6 Sem. Hrs.
General Education Electives	2-4 Sem. Hrs.
RESEARCH	2-6 SEM. HRS.
El. Ed. 575 Research Techniques	2 Sem. Hrs.
El. Ed. 550 Project	4 Sem. Hrs.
El. Ed. 525 Master's Thesis	6 Sem. Hrs.
(Each candidate after a conference with his adviser, may select one of the above requirements.)	
UNRESTRICTED ELECTIVES	4-10 SEM. HRS.

EDUCATION FOR EXCEPTIONAL CHILDREN

Total requirements 32 Semester Hours

EDUCATION OF MENTALLY RETARDED CHILDREN

REQUIRED COURSES IN FIELD OF SPECIALIZATION	12 SEM. HRS.
Ed. Ex. 501 Workshop in Education of Mentally Retarded Children	6 Sem. Hrs.
Ed. Ex. 511 Seminar in Education of Mentally Retarded Children	2 Sem. Hrs.

Ed. Ex. 521 Guidance of Mentally Retarded Children ..	2 Sem. Hrs.
Ed. Ex. 541 Psychology of Exceptional Children	2 Sem. Hrs.
(This course is required for certification to teach exceptional children. Students who have received certification prior to entrance upon graduate study will be excused.)	

REQUIRED COURSES IN GENERAL EDUCATION	12 SEM. HRS.
English and/or Social Studies	6 Sem. Hrs.
General Education Electives	6 Sem. Hrs.
RESEARCH	2-6 SEM. HRS.
Ed. 575 Research Techniques	2 Sem. Hrs.
Ed. Ex. 550 Project	4 Sem. Hrs.
Ed. Ex. 525 Master's Thesis	6 Sem. Hrs.
(Each candidate, after conferences with his adviser, may select one of the above requirements.)	
UNRESTRICTED ELECTIVES	2-6 SEM. HRS.

EDUCATION OF ORTHOPEDICALLY HANDICAPPED CHILDREN

REQUIRED COURSES IN FIELD OF SPECIALIZATION ..	12 SEM. HRS.
Ed. Ex. 502 Workshop in Education of Orthopedically Handicapped Children	6 Sem. Hrs.
Ed. Ex. 512 Seminar in Education of Orthopedically Handicapped Children	2 Sem. Hrs.
Ed. Ex. 522 Guidance of the Orthopedically Handicapped	2 Sem. Hrs.
Ed. Ex. 541 Psychology of Exceptional Children	2 Sem. Hrs.
(Required for certification)	
REQUIRED COURSES IN GENERAL EDUCATION	12 SEM. HRS.
English and/or Social Studies	6 Sem. Hrs.
General Education Electives	6 Sem. Hrs.
RESEARCH	2-6 SEM. HRS.
Ed. 575 Research Techniques	2 Sem. Hrs.
Ed. Ex. 550 Project	4 Sem. Hrs.
Ed. Ex. 525 Master's Thesis	6 Sem. Hrs.
(Each candidate, after conference with his adviser, may select one of the above requirements.)	
UNRESTRICTED ELECTIVES	2-6 SEM. HRS.

EDUCATION IN SPEECH CORRECTION

REQUIRED COURSES IN FIELD OF SPECIALIZATION ..	12 SEM. HRS.
Ed. Ex. 503 Clinical Procedures in Speech Correction ..	3 Sem. Hrs.
Ed. Ex. 513 Seminar in Speech Science	3 Sem. Hrs.
Ed. Ex. 524 Introduction to Audiology	2 Sem. Hrs.
Ed. Ex. 533 Seminar in Speech Pathology	2 Sem. Hrs.
Ed. Ex. 535 Mental Measurement	2 Sem. Hrs.
Ed. Ex. 541 Psychology of Exceptional Children	2 Sem. Hrs.
(Required for certification)	

REQUIRED COURSES IN GENERAL EDUCATION	12 SEM. HRS.
English and/or Social Studies	6 Sem. Hrs.
General Education Electives	6 Sem. Hrs.
Free Electives	2-4 Sem. Hrs.

RESEARCH	2-6 SEM. HRS.
Ed. 575 Research Techniques	2 Sem. Hrs.
Ed. Ex. 550 Project	4 Sem. Hrs.
Ed. Ex. 525 Master's Thesis	6 Sem. Hrs.
(Each candidate, after conference with his adviser, may select one of the above requirements.)	

UNRESTRICTED ELECTIVES	2-6 SEM. HRS.
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EDUCATION OF HARD-OF-HEARING CHILDREN

EDUCATION OF PARTIALLY-SIGHTED CHILDREN

(Teachers interested in either of the two above fields of teaching should write to Director of Division of Education for Exceptional Children for information.)

EARLY SECONDARY EDUCATION

State Teachers Colleges, responding to the growing demand for teachers in the seventh, eighth and ninth grades, have developed with the cooperation of the Office of Certification of the State Education Department, a program which is authorized by State University of New York, permitting holders of the Bachelor's degree to extend elementary certification to include teaching in the early secondary (junior high) schools of New York State.

The completion of two courses in one summer session, (one in Early Secondary School Education and one in the subject matter field of specialization), will entitle the elementary teacher to a one-year certificate to teach in the early secondary grades. This certification will be renewed from year to year by continued summer session and extension study, and teaching in the early secondary (junior high school) grades. The permanent form of early secondary certification will be granted upon the completion of thirty semester hours in this graduate program and evidence of satisfactory teaching experience at the early secondary grade level.

A teacher preparing for early secondary (junior high) school teaching who wishes also to become a candidate for the Master of Science degree should read paragraphs 1-8, pages in this bulletin.

Preparation for teaching in the early secondary grades is offered in four subject matter fields:

ENGLISH, MATHEMATICS, SCIENCE, SOCIAL STUDIES.

THE TEACHING OF ENGLISH IN EARLY SECONDARY (JUNIOR HIGH) SCHOOL

PREREQUISITES	21 SEM. HRS.
Written Composition	6 Sem. Hrs.
Speech	6 Sem. Hrs.
Literature (English, American, Contemporary)	9 Sem. Hrs.

THE GRADUATE PROGRAM	30 SEM. HRS.
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Required Courses: (by advisement) within the area of specialization:

3 hour course in English Literature to be chosen from:

Eng. 504, 505, 509, 511A, 511B, 520, 521, 523.

3 hour course in American Literature to be chosen from:

Eng. 503, 510, 518, 519, 522, 524.

3 hour course in general literature to be chosen from:

Eng. 506, 508, 512, 515.

3 hour course in language to be chosen from:

Eng. 500, 526.

Elective Courses: (by advisement) within the area of specialization or other academic fields:

Professional Courses:

Required courses: Ed. 532; (by advisement) Ed. 529, 536.

Elective courses: Ed. 506, 519, 523, 533, 537, 538, 541, 542.

THE TEACHING OF MATHEMATICS IN EARLY SECONDARY (JUNIOR HIGH) SCHOOL

PREREQUISITES	12 SEM. HRS.
Twelve or more semester hours of undergraduate mathematics (chosen by advisement) from the following:	

General Mathematics, College Algebra, Plane Trigonometry, Plane Analytic Geometry, Differential Calculus, Integral Calculus.

THE GRADUATE PROGRAM	30 SEM. HRS.
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Required courses: within the area of specialization,

Math. 503, 504, 505, 506

Elective courses: (by advisement) in the area of specialization or other academic field

Professional Courses:

Required Courses: Ed. 532; (by advisement) Ed. 529, 536.

Elective Courses: Ed. 506, 519, 523, 533, 537, 538, 541, 542.

THE TEACHING OF SCIENCE IN EARLY SECONDARY (JUNIOR HIGH) SCHOOL

PREREQUISITES	24 SEM. HRS.
Earth Science	6 Sem. Hrs.
Biology	6 Sem. Hrs.
Physics	6 Sem. Hrs.
Chemistry	6 Sem. Hrs.

THE GRADUATE PROGRAM 30 SEM. HRS.
Required courses within the area of specialization
 Sci. 501, 518 3-6 Sem. Hrs.
Elective Courses (by advisement) to be chosen from:
 Sci. 502, 503, 504, 505, 523, 527, 528 6-9 Sem. Hrs.
Elective Courses (by advisement) within the area of
 specialization or other academic fields: 9-10 Sem. Hrs.
Professional Courses 8-9 Sem. Hrs.
 Required Courses: Ed. 532; (by advisement) Ed. 529, 536.
 Elective Courses: Ed. 506, 519, 523, 533, 537, 538, 541, 542.

THE TEACHING OF SOCIAL STUDIES IN EARLY SECONDARY (JUNIOR HIGH) SCHOOL

PREREQUISITES 21 SEM. HRS.
 American History 6 Sem. Hrs.
 European History 6 Sem. Hrs.
 Geography 3 Sem. Hrs.
 Political Science } Minimum of 2 hrs.
 Economics } each in 2 fields.
 Sociology } 6 Sem. Hrs.
 (Substitution may be made for individual requirements provided
 the deficiency is corrected on the graduate level.)

THE GRADUATE PROGRAM 30 SEM. HRS.
Required Courses: (by advisement) within the area
 of specialization: 12 Sem. Hrs.
 a. In related fields:
 Political Science such as: S.S. 503, 519 } Minimum of 2 hours
 Economics such as: S.S. 505 } each in 2 fields.
 Sociology such as: S.S. 506, 521 } 6 Sem. Hrs.
 (If this requirement has been met by electives on the undergraduate
 level the student may substitute Social Studies *graduate* electives.)
 b. Concentration in 1 of 3 areas 6 Sem. Hrs.
 Community and New York State Studies
 such as: S.S. 506, 507, 509, 510, 519.
 American Studies
 such as: S.S. 500, 502, 504, 512, 513, 515, 521.
 World Studies
 such as: S.S. 501A, 501B, 508, 511, 516, 518; Geog. 500, 501.
Elective Courses: (by advisement) within the area of
 specialization or other academic fields 9-10 Sem. Hrs.
Professional Courses: 8-9 Sem. Hrs.
 Required courses: Ed. 532, (by advisement) Ed. 529, 536.
 Elective courses: Ed. 506, 519, 523, 533, 537, 538, 541, 542.

HOME ECONOMICS EDUCATION

Total Requirements 32 Semester Hours

COURSES IN TECHNICAL AND RELATED FIELDS 20-23 SEM. HRS.

Technical Courses:

Family Life (including Home Management, etc.) 2-6 Sem. Hrs.
 Foods and Nutrition and/or Clothing and Textiles 2-6 Sem. Hrs.

Courses in Related Fields:

Seminar in Home Economics Ed. (required) 3 Sem. Hrs.
 Workshop in Home Economics Ed. or 3-6 Sem. Hrs.
 Electives (by advisement) 2-5 Sem. Hrs.

Research:

Ed. 575 Research Techniques 2 Sem. Hrs.
 H. Ec. 550 Project 4 Sem. Hrs.
 H. Ec. 525 Thesis 6 Sem. Hrs.
 (Each candidate, after conference with her adviser, may select one
 of the above requirements. Credit may be applied to technical or
 related area or may be divided between them depending upon the
 nature of the work done.)

GENERAL EDUCATION GRADUATE ELECTIVES 9-12 SEM. HRS.

Social Studies 2 Sem. Hrs.
 Science and/or Art 2-4 Sem. Hrs.
 Unrestricted Elective 4-6 Sem. Hrs.

INDUSTRIAL ARTS EDUCATION

Total Requirements 32 Semester Hours

COURSES IN TECHNICAL AND RELATED FIELDS 20-23 SEM. HRS.

Technical Courses:

Specialization in Shop Laboratory 2-4 Sem. Hrs.
 Workshop in Industrial Arts Education 2-4 Sem. Hrs.
 Seminar in Industrial Arts Education 2-4 Sem. Hrs.
 Field Studies in Industrial Areas 3-6 Sem. Hrs.

Courses in Related Fields:

Workshop in Industrial Art Education 2-4 Sem. Hrs.
 Contemporary Labor Problems and Legislation 2-4 Sem. Hrs.
 Occupational Activities for the Handicapped 2-6 Sem. Hrs.
 Electives (by advisement) 2-6 Sem. Hrs.

Research:

Ed. 575 Research Techniques 2 Sem. Hrs.
 I.A. 550 Project 4 Sem. Hrs.
 I.A. 525 Thesis 6 Sem. Hrs.
 (Each candidate, after conference with his adviser, may select one
 of the above requirements. Credit may be applied to technical or
 related fields or divided between them depending upon the nature
 of the work done.)

GENERAL EDUCATION GRADUATE ELECTIVES 9-12 SEM. HRS.

English 2-4 Sem. Hrs.
 Mathematics and/or Science 3-6 Sem. Hrs.
 Social Studies 2-4 Sem. Hrs.
 Unrestricted Electives 3-6 Sem. Hrs.

INTENSIVE TEACHER TRAINING PROGRAM ELEMENTARY TEACHING CERTIFICATION FOR LIBERAL ARTS COLLEGE GRADUATES

To help relieve the extreme shortage of elementary teachers the College offers an intensive training program through which graduates of other colleges may prepare for elementary school teaching. The completion of a minimum of thirty semester hours, on the graduate level, twenty-four hours of which shall be in education courses approved for elementary school teaching, and evidence of satisfactory teaching, as determined by an approved evaluation program, will entitle the student to a permanent certificate to teach in the elementary grades.

To enter this program college graduates register in the Graduate Division for certain specified Summer Session or Extension courses. Completion of prescribed courses in a Summer Session will entitle the college graduate to a renewable certificate valid for one year. Additional renewals will be granted upon evidence of continued Summer Session study and satisfactory teaching.

For students wishing to complete the requirements for the Master of Science degree, six hours of graduate study, elected under the guidance of the Graduate Division of the College, will be required *in addition to the twenty-six hours of required courses in Elementary Education. Regulations relating to admission to candidacy must be followed.* All college graduates interested in this program for certification in elementary school teaching, should secure application blanks and complete instructions for registration as soon as possible.

Intermediate and Upper Grade Group

Workshop in Elementary Education (Summer Session only)	8 Sem. Hrs.
Seminar in Elementary School Problems	3 Sem. Hrs.
(Emphasis on Science, Mathematics and Language Arts)	
Music and Art in Elementary Education	3 Sem. Hrs.
Workshop in Child Development (Summer Session only)	6 Sem. Hrs.
Problems in Elementary School Curriculum	3 Sem. Hrs.
Seminar in Elementary Education	3 Sem. Hrs.
Electives	4 Sem. Hrs.
	30 Sem. Hrs.

Kindergarten-Primary Group

Workshop in Elementary Education (Summer Session only)	8 Sem. Hrs.
Kindergarten Education	3 Sem. Hrs.
Psychology of the Pre-School Child	3 Sem. Hrs.
Seminar in Elementary School Problems	3 Sem. Hrs.
(Emphasis on Language Arts, Science, Mathematics)	
Music and Art in Elementary Education	3 Sem. Hrs.
Workshop in Child Development (Summer Session only)	6 Sem. Hrs.
Electives	4 Sem. Hrs.
	30 Sem. Hrs.

EXTENSION DIVISION SCHEDULE

(Saturday—Tuesday—Wednesday)

GRADUATE DIVISION CLASSES

1955-1956

First Semester

SATURDAY MORNING: 9:00 A.M. — 11:30 A.M. (3 hours credit)

Art 508X	Graduate Studio in Design and Spatial Organization ..	Mr. Jiskra
Art 509X	Graduate Studio in Crafts (2 or 3 hours credit) ..	Dr. Winebrenner
El. Ed. 501X	Seminar in Elementary Education	Dr. Crayton
El. Ed. 504X	Administration of the Elementary School ..	Dr. MacVittie
El. Ed. 510X	Seminar in Elementary School Problems ..	(I.T.T.P. Students only)
		Miss Concannon
		Miss M. Pratt

SATURDAY MORNING: 9:00 A.M. — 10:40 A.M. (2 hours credit)

Art 509X	Graduate Studio in Crafts	Dr. Winebrenner
Ed. 533X	Workshop in Audio-Visual Education	Dr. Smay
Ed. 575X	Research Techniques	Dr. Penn
Eng. 505X	Studies in the Novel	Dr. McRae
I.A. 503X	Guidance Seminar in Life Adjustment Education ..	Dr. Russell
I.A. 517X	Electronics	Dr. Cook
I.A. 526X	Applied Industrial Design	Mr. Steffen
Sci. 523X	Science in Transportation	Dr. Lampkin
S.S. 501Bx	Studies in 20th Century European History:	
	The Soviet Union	Dr. Mason

SATURDAY MORNING: 10:50 A.M. — 12:30 P.M. (2 hours credit)

Ed. 575X	Research Techniques	Dr. Hertzberg
Eng. 502X	Studies in American Literature	Dr. Gronewold
H.Ec. 504X	Problems in Foods and Nutrition	
I.A. 500X	Workshop in Industrial Arts Education	Dr. Harlan
I.A. 502X	Field Studies Related to Industrial Arts Education ..	Mr. Brossman
Sci. 501X	Field Studies in Science I	Dr. Sengbusch
S.S. 511X	Problems of Contemporary England	Dr. Robison

TUESDAY AFTERNOON: 4:20 P.M. — 6:00 P.M. (2 hours credit)

Ed. Ex. 538X	Understanding the Problem Child	Dr. Cutter
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TUESDAY EVENING: 6:30 P.M. — 8:10 P.M. (2 hours credit)

Art 504X	Seminar of Art in Human Affairs	Mr. Lofgren
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TUESDAY EVENING: 6:30 P.M. — 9:00 P.M. (3 hours credit)

- Art 510X Graduate Studio in Photography Dr. Truesdale
(Class limited to 15)
Art 511X Art in the Elementary Curriculum Miss Case
Ed. 506X Philosophy of Education Dr. Sloan
Ed. Ex. 523X Applied Phonetics Miss Gallagher
Eng. 507X The Modern Novel Dr. Greenwood
S.S. 506X Minority Problems in American Culture Dr. Hollister

WEDNESDAY AFTERNOON: 4:20 P.M. — 6:00 P.M. (2 hours credit)

- S.S. 514X Workshop in Human Relations Dr. Burrell

Second Semester

SATURDAY MORNING: 9:00 A.M. — 11:30 A.M. (3 hours credit)

- Art 512X Graduate Studio in Sculpture (2 or 3 hours credit) ..
Mr. Bolinsky
Art 513X Graduate Studio in Graphic Arts (2 or 3 hours credit) ..
Mr. O'Connell
El. Ed. 501X Seminar in Elementary Education
El. Ed. 505X Evaluation Techniques in the Elementary School
El. Ed. 511X Music and Art in Elementary Education ..
Mrs. Heyman
(I.T.T.P. Students only) Mr. Bailey
El. Ed. 521X The Elementary School Curriculum or
Ed. 542X Seminar in Early Secondary School Curriculum
El. Ed. 530X Principles of Supervision Dr. Milanovitch

SATURDAY MORNING: 9:00 A.M. — 10:40 A.M. (2 hours credit)

- Art 512X Graduate Studio in Sculpture Mr. Bolinsky
Art 513X Graduate Studio in Graphic Arts Mr. O'Connell
Ed. 575X Research Techniques
Eng. 524X Realism in American Literature Dr. Fried
Geog. 501X Studies in Industrial Geography Mr. Redden
I.A. 501X Seminar in I.A. Education Dr. Neuthardt
*I.A. 519X Workshop: New Methods and Techniques in
Woodworking Dr. Callan
I.A. 523X Industrial Arts in the Elementary School Dr. Russell
S.S. 519X Case Studies in Local Government and Politics ..
Dr. R. Brown

SATURDAY MORNING: 10:50 A.M. — 12:30 P.M. (2 hours credit)

- Ed. 575X Research Techniques Dr. Martorana
H. Ec. 507X Evaluation in Home Economics Education
I.A. 521X New Methods and Techniques in Metal Working ..
Dr. Fontana
I.A. 524X Evaluation and Testing in I.A. Dr. Harlan
Math 500X Mathematics in the Elementary Curriculum ..
Dr. Cherkauer

- Sci. 501X Science in the Elementary Curriculum Dr. Urban
S.S. 505X Studies in Contemporary Economic Problems .. Dr. Hein

TUESDAY AFTERNOON: 4:20 P.M. — 6:00 P.M. (2 hours credit)

- Ed. Ex. 511X Seminar in Education of Mentally Retarded
Children Dr. Mann
Ed. Ex. 520X Speech Correction for Elementary Teachers ..
Miss Gallagher
Ed. Ex. 541X Seminar in the Psychology of Exceptional
Children

TUESDAY EVENING: 6:30 P.M. — 9:00 P.M. (3 hours credit)

- Art 501X Workshop in Art Education Materials Mr. Hoffa
Art 510X Graduate Studio in Photography Mr. Baxter
El. Ed. 527X Problems in Educational Services for Young Children
.. Miss Jamison
Eng. 521X Studies in Modern British Poetry Dr. Drew
S.S. 513X Social and Intellectual History of the United States ..
Dr. Weaver

TUESDAY EVENING: 7:00 P.M. — 8:40 P.M. (2 hours credit)

- *I.A. 519X Workshop: New Methods and Techniques in
Woodworking Dr. Callan

WEDNESDAY AFTERNOON: 4:20 P.M. — 6:00 P.M. (2 hours credit)

- S.S. 514Ax Advanced Workshop in Human Relations Dr. Burrell

*I.A. 519X will be offered *either* Saturday morning *or* Tuesday evening (*not both*), depending on registration, Saturday, September 17th.

PROPOSED GRADUATE DIVISION CLASSES

1956-1957

First Semester

SATURDAY MORNING: 9:00 A.M. — 11:30 A.M. (3 hours credit)

- Art 505X Seminar in Art Education Mr. Lofgren
 Art 507X Graduate Studio in Painting (2-3 hours credit) .. Mr. Busa
 El. Ed. 501X Seminar in Elementary Education
 El. Ed. 503X Organization of the Elementary School
 El. Ed. 510X Seminar in Elementary School Problems ..
 (I.T.T.P. Students only) Miss M. Pratt
 Miss Concannon

Ed. 537X Evaluation in the Early Secondary School

SATURDAY MORNING: 9:00 A.M. — 10:40 A.M. (2 hours credit)

- Art 507X Graduate Studio in Painting Mr. Busa
 Ed. 533X Workshop in Audio-Visual Education Dr. Smay
 El. Ed. 575X Research Techniques
 Ed. Ex. 541X Seminar in the Psychology of Exceptional Children ...
 Eng. 511Ax Studies in the Poetry of the Victorian Period .. Dr. McRae
 I.A. 513X Guidance Seminar in Life Adjustment Education ..

- Dr. Russell
 I.A. 517X Electronics Dr. Cook
 I.A. 520X Applied Industrial Design Mr. Steffen
 *Math 503X The Function Concept Dr. Ebert
 Sci. 509X Recent Advances in Science Applied to Home Economics ..
 Miss Dupre

S.S. 515X Studies in American Colonial History Dr. Robison

SATURDAY MORNING: 10:50 A.M. — 12:30 P.M. (2 hours credit)

- El. Ed. 575X Research Techniques
 H. Ec. 512X Equipment
 I.A. 500X Workshop in Industrial Arts Education Dr. Harlan
 I.A. 502X Field Studies Related to Industrial Arts Education ..

- Mr. Brossman
 Sci. 501X Field Studies in Science I Dr. Sengbusch
 S.S. 518X Contemporary European Political Movements ..
 Dr. E. Brown

TUESDAY AFTERNOON: 4:20 P.M. — 6:00 P.M. (2 hours credit)

Ed. Ex. 524X Introduction to Audiology Miss Gallagher

TUESDAY EVENING: 6:30 P.M. — 9:00 P.M. (3 hours credit)

- Art 506X Seminar in Contemporary Movements in Art
 Art 508X Graduate Studio in Design and Spatial Organization ..
 Mr. Baxter

- Ed. 506X Philosophy of Education Dr. Sloan
 Eng. 509X Studies in the Prose and Poetry of Milton ..
 Dr. Gronewold

S.S. 501Ax Studies in 20th Century European Problems:
 The German Problem Dr. Mason

PROPOSED GRADUATE DIVISION CLASSES

1956-1957

Second Semester

SATURDAY MORNING: 9:00 A.M. — 11:30 A.M. (3 hours credit)

- Art 511X Art in the Elementary Curriculum Mr. Ahrens
 Art 510X Graduate Studio in Photography Dr. Truesdale
 (Class limited to 15)

Art 512X Graduate Studio in Sculpture (2-3 hours credit) ..
 Mr. Bolinsky

- El. Ed. 504X Administration of the Elementary School
 El. Ed. 511X Music and Art in the Elementary School .. Mrs. Heyman
 (I.T.T.P. Students only) Mr. Bailey

Ed. 519X Applied Mental Hygiene

OR

- El. Ed. 521X Elementary School Curriculum
 El. Ed. 531X Supervision of Teaching
 Ed. 536X Early Secondary School Problems and Methods

SATURDAY MORNING: 9:00 A.M. — 10:40 A.M. (2 hours credit)

- Art 512X Graduate Studio in Sculpture Mr. Bolinsky
 El. Ed. 575X Research Techniques
 Eng. 511Bx Studies in the Prose of the Victorian Period .. Dr. Gragg
 H. Ec. 506X Home Management
 I.A. 501X Seminar in Industrial Arts Education Dr. Neuthardt
 *I.A. 519X Workshop: New Methods and Techniques in

- Woodworking Dr. Callan
 I.A. 523X Industrial Arts in the Elementary School Dr. Russell
 Sci. 503X Ecology Dr. Urban
 S.S. 504X History of the American Frontier Dr. Rapp

SATURDAY MORNING: 10:50 A.M. — 12:30 P.M. (2 hours credit)

- Ed. 575X Research Techniques
 Eng. 500X Studies in the Structure and Function of Language ..

OR

Geog. 500X Geography of Eastern Asia Dr. Redden
 LLLL OR

Geog. Studies in the Geography of North America Dr. Redden
 I.A. 521X New Methods and Techniques in Metalworking ..

- Dr. Fontana
 I.A. 524X Evaluation and Testing in Industrial Arts ... Dr. Harlan
 **Math 504X Mathematics of Finance
 S.S. 520X Workshop in Methods and Materials in Social Studies
 in the Elementary School Dr. Robison

TUESDAY AFTERNOON: 4:20 P.M. — 6:00 P.M. (2 hours credit)

Ed. Ex. 533X Speech Pathology Miss Gallagher

TUESDAY EVENING: 7:00 P.M. — 8:40 P.M. (2 hours credit)

*I.A. 519X Workshop: New Methods and Techniques in
Woodworking Dr. Callan

TUESDAY EVENING: 6:30 P.M. — 9:00 P.M. (3 hours credit)

Art 509X Graduate Studio in Crafts (2-3 hours credit) ..
Dr. Winebrenner

Art 513X Graduate Studio in Graphic Arts (2-3 hours credit) ..
Mr. O'Connell

Eng. 522X Studies in Modern American Poetry Dr. Drew

S.S. 521X Contemporary Social Problems Dr. Weaver

*I.A. 519X will be offered *either* Saturday morning *or* Tuesday evening (*not both*), depending on registration, Saturday, September 17.

UNDERGRADUATE COURSE OFFERINGS

1955-1956

(Additional classes will be
organized if need arises)

First Semester

SATURDAY MORNING: 9:00 A.M. — 10:40 A.M. (2 hours credit)

Art 322X Home Furnishing Mrs. Lindemann

Eng. 408X The Short Story Miss Norenberg

*Math 301X Plane Analytics Dr. Ebert
OR

*Math 403X Differential Calculus Dr. Ebert

S.S. 225X Historical Influences on Modern Society .. Dr. E. Brown

SATURDAY MORNING: 10:50 A.M. — 12:30 P.M. (2 hours credit)

Geog. 407X Conservation of Natural Resources Dr. Eckert

Sci. 421X Human Anatomy and Physiology Miss Dupre

S.S. 306X American History Since 1865 Mr. Rogers

*Required of students seeking certification to teach Mathematics in the Early
Secondary School.

Second Semester

SATURDAY MORNING: 9:00 A.M. — 10:40 A.M. (2 hours credit)

Eng. 203X Modern Drama Mr. Schuck

Sci. 401X Genetics Mr. Laug

S.S. 303X Europe Since 1914 Dr. Mason

SATURDAY MORNING: 10:50 A.M. — 12:30 P.M. (2 hours credit)

Art 400X Workshop in Crafts Mr. Dakin

Eng. 349X Speech Activities in the Elementary School . Miss Piquette

Sci. 208X Physical Science II Mrs. Saenger

*Sci. 500X Science in the Elementary Curriculum Dr. Urban

S.S. 312X History and Government of New York State Dr. Rapp

PROPOSED UNDERGRADUATE COURSE OFFERINGS

1956-1957

(Additional classes will be organized if need arises)

First Semester

SATURDAY MORNING: 9:00 A.M. — 10:40 A.M. (2 hours credit)

Art 400X	Workshop in Crafts	Mr. Stark
Eng. 345X	Radio and Television in Education	Mr. Smith
Geog. 403X	Geography of Europe	Miss Laux
S.S. 304X	American History to 1789	Mr. Sexton

SATURDAY MORNING: 10:50 A.M. — 12:30 P.M. (2 hours credit)

Art 403X	Stage Craft	Mr. Dakin
**Math 403X	Differential Calculus	
OR		
**Math 404X	Integral Calculus	
Sci. 305X	Zoology	Mr. Nadolinski
OR		
Sci. 306X	Botany	Mr. Nadolinski
S.S. 346X	American Politics and Political Parties	Dr. R. Brown

Second Semester

SATURDAY MORNING: 9:00 A.M. — 10:40 A.M. (2 hours credit)

Eng. 408X	The Short Story	Miss Norenberg
Eng. 407X	Romantic Movement	Mr. Schuck
Geog. 407X	Conservation of Natural Resources	Dr. Eckert
S.S. 417X	Juvenile Delinquency	Dr. Hollister

SATURDAY MORNING: 10:50 A.M. — 12:30 P.M. (2 hours credit)

Sci. 311X	Geology	Mr. Sheel
S.S. 310X	History of the Far East	Mr. Rogers

**Required of students seeking certification to teach Mathematics in the Early Secondary School.

COURSE DESCRIPTIONS

GRADUATE COURSES IN ART EDUCATION

ART 501X. WORKSHOP IN ART EDUCATION MATERIALS, PROCESSES, AND MATERIALS. Analysis and experiment with materials and processes significant to community, school, and group activities. Credit: three semester hours.

ART 504X. SEMINAR IN ART IN HUMAN AFFAIRS. Art activity as a dynamic force in the life of an individual and society; psychology of creative activities; creative activity as a way of clarifying thought, attaining control of emotions, propagating individual and group attitudes, beliefs, ceremonials, and practices. Credit: two semester hours.

ART 505X. SEMINAR IN ART EDUCATION. Problems and projects in teaching and supervising art in various types of communities and schools; contemporary philosophy, psychology, principles, and practices in art and general education; research and scientific methods in determining programs, policies, and procedures for the art teacher and supervisor. Required of all Art Education majors. Prerequisite: one or more years of teaching. Credit: three semester hours.

ART 506X. SEMINAR IN HISTORY OF ART — CONTEMPORARY MOVEMENTS IN ART. Trends in the arts of painting, sculpture, graphic arts, architecture, industrial art, commercial art, and crafts, related to developments in music, drama, and literature; lectures, readings, experiments and demonstrations; visits to galleries, studios, and plays. Credit: three semester hours.

ART 507X. GRADUATE STUDIO IN DRAWING, PAINTING, GRAPHIC ARTS. Individual activities with a variety of graphic media determined for each individual according to his background and needs; studio and outdoor problems, field and gallery trips. Credit: two or three semester hours.

ART 508X. GRADUATE STUDIO IN DESIGN AND SPATIAL ORGANIZATION. Individualized designing with paint and materials; specialization may be in home planning and furnishing; costume, textile, stage, commercial or industrial design. Credit: three semester hours.

ART 509X. GRADUATE STUDIO IN CRAFTS. Individualized work in textiles, jewelry, leather, woodcarving, sculpture, plastics, pottery, and metal. Credit: two or three semester hours.

ART 510X. GRADUATE STUDIO IN PHOTOGRAPHY. Photographic processes; black-and-white and color photography as a form of expression, as commercial art, as a form of recording, and as used in the making of teaching aids and publications. Credit: three semester hours.

ART 511X. ART IN THE ELEMENTARY CURRICULUM. The use of art materials, processes, and procedures in the elementary school; developing creative and expressive activities of children. Credit: three semester hours.

ART 512X. STUDIO IN SCULPTURE. Sculpture as a means of individual and group expression; theory and processes using media such as wood, stone, plaster, cement block and metal. Credit: two or three semester hours.

ART 513X. GRADUATE STUDIO IN GRAPHIC ARTS. Individually programmed activities in one or more of the following media: lithography, wood engraving, etching, serigraphy, dry paint, engraving. Credit: two or three semester hours.

GRADUATE COURSES IN EDUCATION

ED. 506X. PHILOSOPHY OF EDUCATION. Principles underlying educational practices; changing concepts of education; education in a democratic society; teaching procedures as determined by a democratic concept of education. Credit: three semester hours.

ED. 519X. APPLIED MENTAL HYGIENE. Principles of mental hygiene and their application to personality development, emotional and social adjustment, and human relationships; application of mental hygiene principles to processes of teaching, pupil learning, classroom management, and conduct of the teacher in lay and professional relationships. Credit: three semester hours.

ED. 533X. WORKSHOP IN AUDIO-VISUAL EDUCATION. Basic audio-visual teaching methods; knowledges and skills in use of equipment; films, filmstrips, slides, and other materials; sources of material and equipment; audio-visual programs in the school; film libraries; ordering of materials; budgets and administration; evaluation of the program. Credit: two semester hours.

ED. 536X. EARLY SECONDARY SCHOOL PROBLEMS AND METHODS. Objectives of early secondary school education; basic principles of learning and motivation; curriculum concepts; organizing learning experiences; providing for individual differences; teacher-pupil planning; selecting and organizing learning materials; audio-visual aids to learning; utilizing school, civic and community resources; status and practice of the core curriculum; nature and purposes of resource units; evaluating pupil growth. For students preparing for early secondary school teaching. Prerequisites: baccalaureate degree. Credit: three semester hours.

ED. 537X. EVALUATION IN THE EARLY SECONDARY SCHOOL. Relationship of evaluation to instructional objectives; selecting, administering, scoring, recording and interpreting standardized and teacher-made instruments for evaluating mental abilities, educational achievements, personality characteristics, interests and aptitudes; diagnosis; guidance; counseling; improving instruction; providing statistical concepts and methods of collecting, tabulating and interpreting data. Credit: three semester hours.

ED. 542X. SEMINAR IN THE EARLY SECONDARY SCHOOL CURRICULUM. Curricular and extra-curricular programs related to social, economic, and community changes; relationship of principles and procedures of curriculum development to educational objectives; relationship of extra-curricular activities to curriculum areas; adaptation of the curriculum to adolescent abilities, needs, and interests; patterns of curriculum development; financing, organizing, scheduling,

and supervising extra-curricular activities; student participation in school management. Credit: three semester hours.

ED. 575X. RESEARCH METHODS AND TECHNIQUES. Various research methods and techniques; collecting, classifying, evaluating data. Required of all candidates for Master of Science degree not writing a thesis, or completing a project. Credit: two semester hours.

GRADUATE COURSES IN ELEMENTARY EDUCATION

EL. ED. 501X. SEMINAR IN ELEMENTARY EDUCATION. Research in elementary education; study of specific problems by individual students in their field of teaching. Required of Elementary Education candidates for the Master of Science degree. Credit: three semester hours.

EL. ED. 503X. ORGANIZATION OF THE ELEMENTARY SCHOOL. Major concepts in Elementary Education; administration of the elementary school; the curriculum; grouping of pupils; the school plant; trends in school building design; co-curricular activities; pupil safety measures. May precede or follow EL. Ed. 504. Open to experienced teachers, principals, and supervisors. Credit: three semester hours.

EL. ED. 504X. ADMINISTRATION OF THE ELEMENTARY SCHOOL. New York State educational system; legal aspects; school board; educational finance; responsibilities of the principal; business management, school plant management; plant maintenance; pupil transportation; pupil counseling; teacher recruitment, selection, employment, assignment, orientation, evaluation, tenure and dismissal. May precede or follow EL. Ed. 503. Open to experienced teachers, principals, and supervisors. Credit: three semester hours.

EL. ED. 505X. EVALUATION TECHNIQUES IN THE ELEMENTARY SCHOOL. Evaluating educational growth of pupils; evaluation related to teaching objectives; informal, objective, and essay type tests; selection, administration, and scoring of measuring instruments (for evaluating and diagnosing mental abilities, educational achievements and personality characteristics of pupils); statistical methods in handling and interpreting data; organization of remedial programs. Credit: three semester hours.

EL. ED. 510X. SEMINAR IN ELEMENTARY SCHOOL PROBLEMS. Methods and materials in language arts, science and mathematics for Elementary School teachers. Open only to liberal arts graduates in the Intensive Teacher Training Program. Credit: three semester hours.

EL. ED. 511X. MUSIC AND ART IN THE ELEMENTARY SCHOOL. Activities and experiments in various art materials suitable for elementary grades with emphasis on new processes and procedures; meets the classroom teacher's need in the field of music. Open only to liberal arts graduates in the Intensive Teacher Training Program. Credit: three semester hours.

EL. ED. 521X. THE ELEMENTARY SCHOOL CURRICULUM. Review of child nature and the learning process; purposes of the elementary school; conflicting philosophies and principles of curriculum development; types of curriculum organi-

zation; transitional steps; methods and materials; creative activities; mental health; community resources; individual differences. Credit: three semester hours.

EL. ED. 530X. PRINCIPLES OF SUPERVISION. Historical developments and changing concepts of supervision; principles of effective supervisory programs; types of administrative organization; maintaining staff morale. Open to experienced teachers, principals, and supervisors. Credit: three semester hours.

EL. ED. 531X. SUPERVISION OF TEACHING. Principles of supervision; classroom observation; evaluating teachers; effect of teachers' purposes and research on choice of subject matter and teaching procedures; teacher-pupil relationships; group and individual conferences; induction of new teachers; inter-visitation; demonstration teaching; teachers' meetings; bulletins; workshops; evaluation of program. Open to experienced teachers, principals and supervisors. Credit: three semester hours.

GRADUATE COURSES IN EDUCATION FOR EXCEPTIONAL CHILDREN

ED. EX. 511X. SEMINAR IN EDUCATION OF CHILDREN WITH RETARDED MENTAL DEVELOPMENT. Problems of class organization, grouping and curriculum; educational psychology for the retarded; psychological tests and their interpretation. Credit: two semester hours.

ED. EX. 520X. SPEECH CORRECTION FOR ELEMENTARY SCHOOL TEACHERS. Types and causes of speech defects and disorders found in elementary school children; treatment of minor disorders by the classroom teacher; some phonetics and speech science; observation of children with speech problems. Credit: two semester hours.

ED. EX. 523X. APPLIED PHONETICS. The application of phonetics to the teaching of speech in the elementary and secondary school; the teaching of speech to the deaf; speech correction including foreign dialects. Open to graduate and qualified undergraduate students. Required for certification in Speech Correction and Education of Deaf and Hard of Hearing. Credit: three semester hours.

ED. EX. 524X. INTRODUCTION TO AUDIOLOGY. Clinical treatment of hearing problems for speech correctionists; hearing testing; hearing aid construction; research in the field of audiology. Prerequisite: Ed. Ex. 204, 305, 306 and 308 or equivalent. Credit: two semester hours.

ED. EX. 533X. SEMINAR IN SPEECH PATHOLOGY. Research studies in Speech: stuttering, voice defects, cleft palate, and cerebral palsy. Prerequisite: Ed. Ex. 204, 305, 306 and 308 or equivalent. Credit: two semester hours.

ED. EX. 538X. UNDERSTANDING THE PROBLEM CHILD IN THE CLASSROOM. Personal and social factors as related to the problem child; case study of an in-

dividual pupil and group discussion of report. Enrollment limited to fifteen. Open to graduate students in any division. Credit: two semester hours.

ED. EX. 541X. SEMINAR IN THE PSYCHOLOGY OF EXCEPTIONAL CHILDREN. The incidence, definition, etiology, and characteristics of atypical children including the gifted, the mentally handicapped, the neurologically impaired, the orthopedically handicapped, the lowered vitality, cardiopathic and chronic medical cases, the emotionally disturbed and socially maladjusted, the speech impaired, the deaf and hard of hearing, the blind and partially sighted; present practices in education; problems in adjustment and employment; legislation; community resources for habilitation; public relations. Credit: two semester hours.

GRADUATE COURSES IN ENGLISH

ENG. 500X. STUDIES IN THE STRUCTURE AND FUNCTION OF LANGUAGE. Fundamental principles basic to all languages; theories of the origin of language; the nature and psychology of language; phonetics and phonetic change; alphabets and systems of writing; language types and families; the Indo-European family and its branches; the history of the English language; word origins and changes in meaning; speech standards. Credit: two semester hours.

ENG. 502X. STUDIES IN AMERICAN LITERATURE. Literary culture in America from the Colonial Period to the present; religious and political influences upon early writings; the Romantic Movement and Transcendentalism; realism and regional literature. Credit: two semester hours.

ENG. 505X. STUDIES IN THE NOVEL. The novel in England, especially in the Nineteenth Century; major novelists; research. Credit: two semester hours.

ENG. 507X. THE MODERN NOVEL. Outstanding American and English twentieth century novels, their social and artistic significance. Credit: three semester hours.

ENG. 509X. STUDIES IN THE PROSE AND POETRY OF MILTON. An intensive study of the most important prose and poetry of Milton with particular emphasis on "Paradise Lost"; the background of Milton's writings. Consent of instructor required. Credit: three semester hours.

ENG. 511Ax. STUDIES IN THE POETRY OF THE VICTORIAN PERIOD. Major Victorian poets, with emphasis on Tennyson and Browning; social, political, and intellectual background of the times. Credit: two semester hours.

ENG. 511Bx. STUDIES IN THE PROSE OF THE VICTORIAN PERIOD. Major Victorian essayists with reference to the intellectual background of nineteenth-century England: Carlyle, Newman, Macaulay, J. S. Mill, Ruskin, and Arnold. Credit: two semester hours.

ENG. 521X. STUDIES IN MODERN BRITISH POETRY. Trends and outstanding figures in British poetry since 1890; emphasis upon the work of two writers from the following: Hardy, Hopkins, Housman, Yeats, and Masfield. Credit: two semester hours.

ENG. 522X. STUDIES IN MODERN AMERICAN POETRY. Trends and outstanding figures in American poetry since 1912; emphasis upon the work of two writers from the following: Robinson, Frost, Millay, Eliot, and Benet. Credit: three semester hours.

ENG. 524X. REALISM IN AMERICAN LITERATURE. Realistic writers of the late 19th century; Howells, James, Clemens, Crane, Norris, and others. Credit: two semester hours.

GRADUATE COURSES IN GEOGRAPHY

GEOG. 500X. GEOGRAPHY OF EASTERN ASIA. China, Japan, Korea, eastern U.S.S.R., the Indo-China Peninsula, and the East Indies; physical characteristics; economic, social, and political conditions. Credit: two semester hours.

GEOG. 501X. STUDIES IN INDUSTRIAL GEOGRAPHY. Selected current topics such as Petroleum and World Politics, Niagara Power Development, Coffee in World Trade, The Chemical Industry of the Niagara Frontier, Production and Distribution of Strategic Minerals; field studies of a local area industry. Credit: two semester hours.

GRADUATE COURSES IN HOME ECONOMICS

H. EC. 504X. PROBLEMS IN FOODS AND NUTRITION. Research developments in foods and nutrition; problems in teaching foods and nutrition to elementary and high school groups; problems related to the individual's teaching situation. Credit: two semester hours.

H. EC. 506X. SEMINAR IN HOME MANAGEMENT. Developments in the field of managing the home; problems in teaching management to secondary and adult classes; individual problems related to student needs. Credit: two semester hours.

H. EC. 507X. EVALUATION IN HOME ECONOMICS EDUCATION. Techniques and instruments for identifying and appraising progress in home economics; methods of teaching appropriate to these objectives; problems of evaluation encountered in teaching. Credit: two semester hours.

H. EC. 512X. WORKSHOP IN HOUSEHOLD EQUIPMENT FOR HOME ECONOMICS TEACHERS. Survey and evaluation of developments in large and small equipment used in homes and schools; field trips, laboratory and demonstrations. Credit: two semester hours.

GRADUATE COURSES IN INDUSTRIAL ARTS

I.A. 500X. WORKSHOP IN INDUSTRIAL ARTS. Organizing and operating the Industrial Arts programs at the elementary, junior, senior high school and adult levels. Credit: two semester hours.

I.A. 501X. SEMINAR IN INDUSTRIAL ARTS. Discussion, research, reports on individual and group problems in Industrial Arts Education. Required of Industrial Arts students registered for the degree of Master of Science. Credit: two semester hours.

I.A. 502X. FIELD STUDIES RELATED TO INDUSTRIAL ARTS EDUCATION. Individual and group studies of industrial activities in the Niagara Frontier; the wood-working and fabricating trades; metal industries; plastic and fibre products; graphic arts; electrical, ceramic, airplane and automotive manufacture; conferences with representatives of industry and various labor organizations. Credit: two semester hours.

I.A. 503X. GUIDANCE SEMINAR IN LIFE ADJUSTMENT EDUCATION. Survey and evaluation of the educational movements leading to the Prosser Resolution; effects of the Life Adjustment Movement upon the schools in the various subject matter areas; implementation of the movement; reports of adaptation plans made in teaching situations. Credit: two semester hours.

I.A. 517xA—I.A. 517xB. ELECTRONICS: Electronics in the junior and senior high school industrial arts program; advanced electronic theory and practice in communications; development of instructional materials, demonstration equipment, projects, and visual aids. I.A. 517xA, Credit: two semester hours. I.A. 517xB, Credit: two semester hours.

I.A. 519X. NEW METHODS AND TECHNIQUES IN WOODWORKING. Carving, appliques and inlays; plastic finishes, wood substitutes, wood bleaches, other recent materials and techniques of the wood industries; individual problems of the in-service teacher. Credit: two semester hours.

I.A. 521X. NEW METHODS AND TECHNIQUES IN METALWORKING. New materials and their possibilities for industrial arts activities; investigation of modern industrial processes in metalworking and their implications for the teaching of Industrial Arts. Credit: two semester hours.

I.A. 523X. INDUSTRIAL ARTS IN THE ELEMENTARY SCHOOL. Functions of Industrial Arts in the elementary school; study of activities for the various grade levels; problems of equipment, organization, supplies; planning and executing units of work. Credit: two semester hours.

I.A. 524X. EVALUATION IN INDUSTRIAL ARTS. General principles of evaluation; construction and use of various informal devices and techniques of evaluation applicable to industrial arts; selection and use of appropriate standardized instruments of evaluation; observation, rating scales, anecdotal records, personnel systems, and the industrial arts project; interpreting, recording and using the results of evaluation for the improvement of instruction. Credit: two semester hours.

I.A. 526X. APPLIED INDUSTRIAL DESIGN. Advanced study of design as applied to Industrial Arts; fundamentals of basic design; exploration of traditional and contemporary forms; sources, development and transition from ideas through form to finished product. Credit: two semester hours.

ENG. 522X. STUDIES IN MODERN AMERICAN POETRY. Trends and outstanding figures in American poetry since 1912; emphasis upon the work of two writers from the following: Robinson, Frost, Millay, Eliot, and Benet. Credit: three semester hours.

ENG. 524X. REALISM IN AMERICAN LITERATURE. Realistic writers of the late 19th century; Howells, James, Clemens, Crane, Norris, and others. Credit: two semester hours.

GRADUATE COURSES IN GEOGRAPHY

GEOG. 500X. GEOGRAPHY OF EASTERN ASIA. China, Japan, Korea, eastern U.S.S.R., the Indo-China Peninsula, and the East Indies; physical characteristics; economic, social, and political conditions. Credit: two semester hours.

GEOG. 501X. STUDIES IN INDUSTRIAL GEOGRAPHY. Selected current topics such as Petroleum and World Politics, Niagara Power Development, Coffee in World Trade, The Chemical Industry of the Niagara Frontier, Production and Distribution of Strategic Minerals; field studies of a local area industry. Credit: two semester hours.

GRADUATE COURSES IN HOME ECONOMICS

H. EC. 504X. PROBLEMS IN FOODS AND NUTRITION. Research developments in foods and nutrition; problems in teaching foods and nutrition to elementary and high school groups; problems related to the individual's teaching situation. Credit: two semester hours.

H. EC. 506X. SEMINAR IN HOME MANAGEMENT. Developments in the field of managing the home; problems in teaching management to secondary and adult classes; individual problems related to student needs. Credit: two semester hours.

H. EC. 507X. EVALUATION IN HOME ECONOMICS EDUCATION. Techniques and instruments for identifying and appraising progress in home economics; methods of teaching appropriate to these objectives; problems of evaluation encountered in teaching. Credit: two semester hours.

H. EC. 512X. WORKSHOP IN HOUSEHOLD EQUIPMENT FOR HOME ECONOMICS TEACHERS. Survey and evaluation of developments in large and small equipment used in homes and schools; field trips, laboratory and demonstrations. Credit: two semester hours.

GRADUATE COURSES IN INDUSTRIAL ARTS

I.A. 500X. WORKSHOP IN INDUSTRIAL ARTS. Organizing and operating the Industrial Arts programs at the elementary, junior, senior high school and adult levels. Credit: two semester hours.

I.A. 501X. SEMINAR IN INDUSTRIAL ARTS. Discussion, research, reports on individual and group problems in Industrial Arts Education. Required of Industrial Arts students registered for the degree of Master of Science. Credit: two semester hours.

I.A. 502X. FIELD STUDIES RELATED TO INDUSTRIAL ARTS EDUCATION. Individual and group studies of industrial activities in the Niagara Frontier; the wood-working and fabricating trades; metal industries; plastic and fibre products; graphic arts; electrical, ceramic, airplane and automotive manufacture; conferences with representatives of industry and various labor organizations. Credit: two semester hours.

I.A. 503X. GUIDANCE SEMINAR IN LIFE ADJUSTMENT EDUCATION. Survey and evaluation of the educational movements leading to the Prosser Resolution; effects of the Life Adjustment Movement upon the schools in the various subject matter areas; implementation of the movement; reports of adaptation plans made in teaching situations. Credit: two semester hours.

I.A. 517xA—I.A. 517xB. ELECTRONICS: Electronics in the junior and senior high school industrial arts program; advanced electronic theory and practice in communications; development of instructional materials, demonstration equipment, projects, and visual aids. I.A. 517xA, Credit: two semester hours. I.A. 517xB, Credit: two semester hours.

I.A. 519X. NEW METHODS AND TECHNIQUES IN WOODWORKING. Carving, appliques and inlays; plastic finishes, wood substitutes, wood bleaches, other recent materials and techniques of the wood industries; individual problems of the in-service teacher. Credit: two semester hours.

I.A. 521X. NEW METHODS AND TECHNIQUES IN METALWORKING. New materials and their possibilities for industrial arts activities; investigation of modern industrial processes in metalworking and their implications for the teaching of Industrial Arts. Credit: two semester hours.

I.A. 523X. INDUSTRIAL ARTS IN THE ELEMENTARY SCHOOL. Functions of Industrial Arts in the elementary school; study of activities for the various grade levels; problems of equipment, organization, supplies; planning and executing units of work. Credit: two semester hours.

I.A. 524X. EVALUATION IN INDUSTRIAL ARTS. General principles of evaluation; construction and use of various informal devices and techniques of evaluation applicable to industrial arts; selection and use of appropriate standardized instruments of evaluation; observation, rating scales, anecdotal records, personnel systems, and the industrial arts project; interpreting, recording and using the results of evaluation for the improvement of instruction. Credit: two semester hours.

I.A. 526X. APPLIED INDUSTRIAL DESIGN. Advanced study of design as applied to Industrial Arts; fundamentals of basic design; exploration of traditional and contemporary forms; sources, development and transition from ideas through form to finished product. Credit: two semester hours.

GRADUATE COURSES IN MATHEMATICS

MATH. 500X. MATHEMATICS IN THE ELEMENTARY CURRICULUM. Development of number; rationale of processes; relationships; generalizations; meaning and significance of number and processes; mathematics as a language; measurement; problem solving; visual aids; professional literature; analyses and reports of readings; individual research and project. Credit: two semester hours.

MATH 503X. THE FUNCTION CONCEPT. Functional relationships; variation and dependence; algebraic, trigonometric, exponential, and logarithmic functions; graphs; empirical curves; linear and exponential trends; applications and related problems. Credit: two semester hours.

MATH 504X. MATHEMATICS OF FINANCE. Simple and compound interest; annuities; amortization and sinking funds; depreciation; bonds, life annuities and life insurance. Credit: two semester hours.

GRADUATE COURSES IN SCIENCE

SCI. 501X. FIELD STUDIES IN SCIENCE I. Biological and geological field work; Selected field studies, group and individual; Intensive studies of one or more areas. Elective for seniors with an average of C or higher in science and for graduates with six hours of undergraduate science. Credit: two semester hours.

SCI. 503X. ECOLOGY. Scientific nature study, the relationships between living things and their physical environment; biological relationships between and within species; man's relationship with the natural environment. Lectures, discussion, readings. Credit: two semester hours.

SCI. 509X. RECENT ADVANCES IN SCIENCE AS APPLIED TO HOME ECONOMICS. Developments in control of food poisonings; study of research in nutritive values of proteins; bacteriology and chemistry of frozen foods; effects of food processing on nutrition; research in other areas affecting home economics; lecture, laboratory work. Open to Graduate students in Division of Home Economics Education only. Credit: two semester hours.

SCI. 523X. SCIENCE IN TRANSPORTATION. Scientific principles in various methods of transportation; the science involved in problems such as safety, comfort, governmental aid and regulation. Open to undergraduates with permission of instructor. Credit: two semester hours.

GRADUATE COURSES IN SOCIAL STUDIES

S.S. 501Ax. STUDIES IN TWENTIETH CENTURY EUROPEAN HISTORY. The "German Problem"; political thought and institutions in Germany prior to 1914; development of the Weimar Republic; the Hitler movement; structure and ideology of the Nazi Party and state; foreign policy leading to World War II; Nazi rule and defeat in Europe; post-war German questions. Prerequisites: 15 hours in Social Studies, including nine in European History. Credit: three semester hours.

S.S. 501Bx. STUDIES IN TWENTIETH CENTURY EUROPEAN HISTORY. The history and institutions of the Soviet Union; chief factors in tsarist Russia; Revolution of 1917; the Bolsheviks' rise to power; political and social ideology; government and the Communist party; economic system; peasant problem; Soviet foreign policy and its relation to international organization; impact of the Soviet Union upon the western world. Prerequisites: 15 hours in Social Studies, including nine in European History. 1955-1956. Credit: two semester hours.

S.S. 504X. HISTORY OF THE AMERICAN FRONTIER. Progress of settlement from the Atlantic to the Pacific; transmission of culture; developments in transportation; the process of state-making; transition from agrarian to urban communities; social, economic, and political effects of the westward march upon the United States as a whole. Prerequisites: 15 hours in Social Studies, including six in American History and six in European History. Credit: two semester hours.

S.S. 505X. STUDIES IN CONTEMPORARY ECONOMIC PROBLEMS. International trade; international finance; inflation; labor legislation; problems of labor and management; price levels. Registration by consent of instructor. Credit: two semester hours.

S.S. 506X. MINORITY GROUPS IN AMERICAN CULTURE. Major racial, nationality, and religious minority groups in America studied from the cultural, historical, and familial points of view; current anthropological and psychological data on uniformities, differences, prejudices, and discrimination. Prerequisites: 15 hours in Social Studies. 1955-1956. Credit: three semester hours.

S.S. 511X. PROBLEMS OF CONTEMPORARY ENGLAND. Rise of trade unions; industrial and labor relations; history of the Labor Party; programs for social democracy; the changing world position of England. 1955-1956. Credit: two semester hours.

S.S. 513X. SOCIAL AND INTELLECTUAL HISTORY OF THE UNITED STATES. Roots of social philosophies; effects of ideas upon American society; continuing patterns of thought, such as Puritanism, liberalism, democracy; contributions of intellectual leaders. Prerequisites: 15 hours in Social Studies, including six in American History. 1955-1956. Credit: three semester hours.

S.S. 514X. WORKSHOP IN HUMAN RELATIONS. Improvement of human relations in classrooms; development of constructive social attitudes in children; particular difficulties faced by children of various groups; guest speakers on local problems. Credit: two semester hours.

S.S. 514Ax. ADVANCED WORKSHOP IN HUMAN RELATIONS. Materials and methods in individual and group work in human relations; individual studies of community agencies and organizations; techniques for reducing tensions in a changing neighborhood; specific situations within a classroom or school causing tensions. Credit: two semester hours.

S.S. 515X. STUDIES IN AMERICAN COLONIAL HISTORY. Comparison of colonial policies of European powers in the new world; modification in a new environ-

ment of transplanted elements such as the family, church, schools, economy, and government. Prerequisites: 15 hours in Social Studies. Credit: two semester hours.

S.S. 518X. CONTEMPORARY EUROPEAN POLITICAL MOVEMENTS. Organization, campaigns, propaganda, electoral geography, and parliamentary tactics; national political parties, especially the Communist, Socialist, Christian Democratic, Radical, Democratic, Peasant, Conservative, and Neo-Fascist. Prerequisites: 15 hours in Social Studies, including six in European History. Credit: two semester hours.

S.S. 519X. CASE STUDIES IN LOCAL GOVERNMENT AND POLITICS. Structure and practice; revenues and expenditures; public housing, health, and welfare; planning and zoning; educational-political relationships; topics selected according to student needs and interests. Prerequisites: 15 hours in Social Studies, including six in American History, and/or Government. Open to qualified seniors with consent of instructor. 1955-1956. Credit: two semester hours.

S.S. 520X. WORKSHOP IN METHODS AND MATERIALS IN SOCIAL STUDIES IN THE ELEMENTARY SCHOOL. Consideration of unit, topic, discussion, project, problem, and laboratory methods; teaching aids such as film strips, pictures, models and library reference materials; types of evaluation. Credit: two semester hours.

S.S. 521X. CONTEMPORARY SOCIAL PROBLEMS. Problem areas of American society; sources of information; techniques for discovering and analyzing social problems; analysis of several major problems, selected according to student needs and interests. Prerequisites: course in elementary Sociology. Open to qualified seniors with consent of instructor. Credit: three semester hours.

UNDERGRADUATE ART COURSES

ART 322X. HOME FURNISHINGS. Use of color, texture, form, space, and other aspects of design in home planning; selection and arrangement of furnishings. Credit: two semester hours.

ART 400X. WORKSHOP IN CRAFTS I. Various crafts: leather work, metal work, ceramics and jewelry; group and individual instruction; election of creative projects. Credit: two semester hours.

ART 403X. STAGECRAFT. Designing and making stage materials, marionettes, miniature stage sets, masks, etc.; staging at least one production. Credit: two semester hours.

UNDERGRADUATE COURSES IN ENGLISH

ENG. 203X. MODERN DRAMA. Chief modern dramatists of Continental Europe, England and America from Ibsen to the present time. Credit: two semester hours.

ENG. 345X. RADIO AND TELEVISION IN EDUCATION. Broadcasting and its history; program evaluation; recordings; radio and television in the classroom;

tours of broadcasting facilities; research paper. Credit: two semester hours.

ENG. 349X. SPEECH ACTIVITIES IN THE ELEMENTARY SCHOOL. Speech as an integrative and developmental activity of elementary school children; conversation; story telling; word games; interviews; creative dramatics. Credit: two semester hours.

ENG. 407X. ROMANTIC MOVEMENT. Romantic poetry and prose: Burns, Wordsworth, Coleridge, Scott, Byron, Shelley, Keats; critics of the period. Credit: two semester hours.

ENG. 408X. THE SHORT STORY. Development of the short story; Hawthorne, Poe, Bierce, W. D. Steele, Susan Glaspell, Ring Lardner, O. Henry, Hemingway, and others. Credit: two semester hours.

UNDERGRADUATE COURSES IN GEOGRAPHY

GEOG. 403X. GEOGRAPHY OF EUROPE. Physiographic and climatic regions related to human use; agriculture, manufacturing, transportation; development of major cities; geographic background of current problems. Credit: two semester hours.

GEOG. 407X. CONSERVATION OF NATURAL RESOURCES. Depletion of resources; soil, water, wildlife, minerals, forests, and grasslands; wise use of resources; conservation programs in the United States. Credit: two semester hours.

UNDERGRADUATE MATHEMATICS COURSES

MATH. 301X. PLANE ANALYTICS. Algebraic geometry of the straight line, circle, parabola, ellipse, and hyperbola; general equation of the second degree; translation and rotation of axes; general loci; rectangular and polar coordinates. Prerequisites: College Algebra and Plane Trigonometry. Credit: two semester hours.

MATH. 403X. DIFFERENTIAL CALCULUS. Variables; functions; limits; the derivative and its meaning; differentiation of algebraic and transcendental functions; maxima and minima; successive differentiation; differentials; partial derivatives; applications and problems. Prerequisites: College Algebra, Plane Trigonometry, and Plane Analytics. Credit: two semester hours.

MATH. 404X. INTEGRAL CALCULUS. Integrations; rules for integrating standard elementary forms; constant of integration; the definite integral; integration as a process of summation; substitutions and devices for formal integration; multiple integrals; applications and problems. Prerequisites: College Algebra, Plane Trigonometry, Plane Analytics, and Differential Calculus. Credit: two semester hours.

UNDERGRADUATE COURSES IN SCIENCE

SCI. 208X. PHYSICAL SCIENCE II. Survey of modern physics and chemistry. Credit: two semester hours.

SCI. 305X. ZOOLOGY. Morphology, physiology, adaptation, reproduction, genetics and ecology of animals; lectures, demonstrations, laboratory work. Credit: two semester hours.

SCI. 306X. BOTANY. Structure and physiology of plants; observations, experiments, and laboratory work centered around control of plant life. Elective for students who have had Science 201-2 or its equivalent. Credit: two semester hours.

SCI. 401X. GENETICS. Principles of heredity; inheritance of specific plant, animal, and human traits. Prerequisite: Sci. 201-202, or its equivalent. Credit: two semester hours.

SCI. 311X. GEOLOGY. Geologic processes during past ages; life and activity in the various eras; local fossils, rock formations, and geologic history; museum and field trips. Prerequisite: Sci. 101 or its equivalent. Credit: two semester hours.

SCI. 421X. HUMAN ANATOMY AND PHYSIOLOGY. Structure and function of the human body, including metabolism, nutrition, and disease. Credit: two semester hours.

SCI. 500X. SCIENCE IN THE ELEMENTARY CURRICULUM. Background, purposes and present scope of science in the elementary schools; professional review of subject matter with demonstrations, experiments, audio-visual aids, readings. Credit: two semester hours.

UNDERGRADUATE COURSES IN SOCIAL STUDIES

S.S. 225X. HISTORICAL INFLUENCES ON MODERN SOCIETY. Impact of significant forces in civilization upon present-day culture: medieval scholasticism; Renaissance individualism and humanism; the scientific spirit; 18th century rationalism; revolutionary doctrine; evolution of the democratic idea; imperialism; nationalism; recent rise of oriental peoples; growth of international organizations. Offered in Extension only. Credit: two semester hours.

S.S. 303X. HISTORY OF EUROPE SINCE 1914. Causes, events, and results of World War I; treaty settlements; post-war developments and problems; areas of friction; the League of Nations; World Court; Fascism; events leading to World War II; important developments to the present time. Offered in Extension only. Credit: two semester hours.

S.S. 304X. AMERICAN HISTORY TO 1789. Early American history from the discovery and settlement of the New World to the formation of the Constitution; European influences; growth and development of the English colonies; the Revolution; establishment of the new nation. Each year. Credit: two semester hours.

S.S. 306X. AMERICAN HISTORY SINCE 1865. Economic, political, and social problems of the post-Civil War era; recognition of the United States as a world

power; its part in the two World Wars; recent developments in international affairs. Offered in Extension only. Two or three hours per week. Credit: two or three semester hours.

S.S. 310X. HISTORY OF THE FAR EAST. Selected topics in the history of China and Japan from the fourteenth century to the present; emphasis on the period after 1800. 1956-1957. Credit: two semester hours.

S.S. 312X. HISTORY AND GOVERNMENT OF NEW YORK STATE. Aboriginal background; development of the colony; establishment of the state; rise of political parties; past and present structure and problems of New York State government; economic and social growth to the present time. Credit: two semester hours.

S.S. 346X. AMERICAN POLITICS AND POLITICAL PARTIES. Framework of American political system; major and minor parties; party organization; party bosses and machines; pressure politics; public opinion and propaganda; party finance; what the citizen can do in politics; talks and interviews by local political leaders. Credit: two semester hours.

S.S. 417X. JUVENILE DELINQUENCY. Current trends in juvenile delinquency; causes, nature, and extent of deviant behavior; resources of the clinician; children's court; methods of treatment. Credit: two semester hours.

GRADUATE DIVISION COURSES

These courses include the graduate offerings from
1954 through 1957 as indicated.

KEY

* Offered in Extension 1954-55

% Offered in Extension 1955-56

† Proposed offerings for 1956-57

'56-'57	'55-'56	'54-'55		
	%		Art 501X	Workshop in Art Education
	%		Art 504X	Art in Human Affairs
†		*	Art 505X	Seminar in Art Education
†			Art 506X	Seminar in Contemporary Movements in Art
†		*	Art 507X	Graduate Studio in Drawing, Paint- ing, Graphic Arts
†	%	*	Art 508X	Graduate Studio in Design and Spatial Organization
†	%	*	Art 509X	Graduate Studio in Crafts
†	%	*	Art 510X	Graduate Studio in Photography
†	%	*	Art 511X	Art in the Elementary Curriculum
†	%	*	Art 512X	Studio in Sculpture
†	%		Art 513X	Graduate Studio in Crafts
	%		Ed. Ex. 511X	Seminar in Education of Mentally Re- tarded Children
	%	*	Ed. Ex. 513X	Seminar in Speech Science
	%		Ed. Ex. 520X	Speech Correction for Elementary School Teachers
	%		Ed. Ex. 523X	Applied Phonetics
†			Ed. Ex. 524X	Introduction to Audiology
†	%	*	Ed. Ex. 533X	Seminar in Speech Pathology
	%	*	Ed. Ex. 538X	Understanding the Problem Child
†	%	*	Ed. Ex. 541X	Seminar in Psychology of Exceptional Children
†	%	*	El. Ed. 501X	Seminar in Elementary Education
†		o	El. Ed. 503X	Organization of the Elementary School
†	%		El. Ed. 504X	Administration of the Elementary School
	%		El. Ed. 505X	Evaluation Techniques
		*	El. Ed. 508X	Supervision of Student Teaching
†	%	*	El. Ed. 510X	Seminar in Elementary School Pro- blems (I.T.T.P.)
		*	El. Ed. 509X	Personality Adjustment
†	%	*	El. Ed. 511X	Music and Art in Elementary Edu- cation (I.T.T.P.)
		*	El. Ed. 515X	Kindergarten Education
		*	El. Ed. 516X	Methods and Materials in the Ele- mentary School

†	%		El. Ed. 521X	Elementary School Curriculum
	%	*	El. Ed. 527X	Problems in Educational Services for Young Children
	%		El. Ed. 530X	Principles of Supervision
†		*	El. Ed. 531X	Supervision of Teaching
†	%	*	Ed. 506X	Philosophy of Education
†			Ed. 519X	Applied Mental Hygiene
†	%	*	Ed. 533X	Workshop in Audio-Visual Education
†			Ed. 536X	Early Secondary School Problems and Methods
†			Ed. 537X	Evaluation in the Early Secondary School
	%		Ed. 542X	Seminar in the Early Secondary School Curriculum
†	%	*	Ed. 575X	Research Methods and Techniques
†			Eng. 500X	Studies in the Structure and Function of Language
	%		Eng. 502X	Studies in American Literature
	%		Eng. 505X	Studies in the Novel
		*	Eng. 506X	Modern Drama
	%		Eng. 507X	The Modern Novel
				Studies in the Prose and Poetry of Milton
†			Eng. 509X	
†			Eng. 511Ax	Studies in the Poetry of the Victorian Period
†		*	Eng. 511Bx	Prose of the Victorian Period
		*	Eng. 514X	Children's Literature
		*	Eng. 518X	Major American Poets
		*	Eng. 520X	Shakespearean Tragedy
	%		Eng. 521X	Studies in Modern British Poetry
†		*	Eng. 522X	Studies in Modern American Poetry
	%		Eng. 524X	Realism in American Literature
†			Geog. 500X	Geography of Eastern Asia
	%		Geog. 501X	Studies in Industrial Geography
		*	Geog. 502X	Map Interpretation for Teachers
		*	H. Ec. 500X	Seminar in Home Economics Education
	%		H. Ec. 504X	Problems in Foods and Nutrition
†			H. Ec. 506X	Home Management
	%		H. Ec. 507X	Evaluation in Home Economics Education
		*	H. Ec. 511X	The Teaching of Family Relations
†			H. Ec. 512X	Equipment
		*	H. Ec. 518X	Homemaking in Special Education
†	%	*	I.A. 500X	Workshop in Industrial Arts Education
†	%	*	I.A. 501X	Seminar in Industrial Arts Education
†	%	*	I.A. 502X	Field Studies Related to Industrial Arts Education
†	%		I.A. 503X	Guidance Seminar in Life Adjustment Education
		*	I.A. 512X	Workshop in Textiles

		*	I.A. 513X	Workshop in Ceramics
		*	I.A. 514X	Techniques and Devices for Shop Laboratory
†	%	*	I.A. 517X	Electronics
†	%	*	I.A. 519X	Workshop: New Methods and Techniques in Woodworking
†	%	*	I.A. 521X	New Methods and Techniques in Metalworking
†	%	*	I.A. 523X	Industrial Arts in the Elementary School
†	%		I.A. 524X	Evaluation and Testing in Industrial Arts
†	%		I.A. 526X	Applied Design
	%	*	Math. 500X	Mathematics of the Elementary School
†			Math. 503X	The Function Concept
†			Math. 504X	Mathematics of Finance
†	%	*	Sci. 500X	Science in the Elementary Curriculum
†		*	Sci. 501X	Field Studies in Science
†		*	Sci. 503X	Ecology
†			Sci. 509X	Recent Developments in Science as Applied to Home Economics
	%	*	Sci. 523X	Science in Transportation
		*	Span. 500X	Workshop in the Teaching of Spanish in the Elementary Grades
†		*	S.S. 501Ax	Studies in Twentieth Century European History
	%	*	S.S. 501Bx	Germany — the Soviet Union
		*	S.S. 502X	U.S. and Its Inter-American Relations
†			S.S. 504X	History of the American Frontier
	%		S.S. 505X	Studies in Contemporary Economic Problems
	%	*	S.S. 506X	Minority Groups in American Culture
	%		S.S. 511X	Problems of Contemporary England
	%		S.S. 513X	Social and Intellectual History of the United States
	%	*	S.S. 514X	Workshop in Human Relations
	%	*	S.S. 514Ax	Advanced Workshop in Human Relations
†		*	S.S. 515X	Colonial History of the United States
†		*	S.S. 518X	European Political Movements
†	%	*	S.S. 519X	Local Government and Politics
†		*	S.S. 520X	Studies in Local Government
†		*	S.S. 521X	Contemporary Social Problems

OFF-CAMPUS EXTENSION

Inquiries have been received to date (July 1, 1955) concerning off-campus courses as follows:

Alexander	
East Aurora	Evaluation Techniques in the Elementary School
Elma	Industrial Arts for the Elementary School
Hamburg	Art in the Elementary Curriculum
Lockport	Children's Literature
Niagara Falls	Studies in Growth and Human Development Contemporary Social Problems
North Tonawanda	The Modern Novel
Newfane	Mathematics in the Elementary Curriculum
Oakfield	Workshop in Audio-Visual Education
West Seneca	Methods and Materials in the Elementary School
Williamsville	Reading Clinic

Teachers who are interested in developing courses in these communities and have not as yet signified their interest should call or write Dr. Robert E. Albright, Director of Extension Education, 1300 Elmwood Ave., Buffalo 22, N. Y., as soon as possible. Courses will be organized if sufficient enrollment can be secured and if faculty schedules can be arranged.

STATE UNIVERSITY OF NEW YORK

The State University of New York was established by the State Legislature in 1948. It comprises twenty-one colleges and six institutes. There are, in addition, ten community colleges which it supervises. While separated geographically, all are united in the purpose to improve and extend opportunities for youth to continue their education after high school.

State University offers cultural and professional four-year programs in liberal arts, home economics, industrial and labor relations, veterinary medicine, ceramics, agricultural, forestry, maritime service, medicine and teacher preparation, as well as two-year programs in a wide variety of fields, including technical courses in agriculture, industrial, health, and service areas. State University is accredited by the Middle States Association of Colleges and Secondary Schools.

Governed by a Board of Trustees appointed by the Governor, State University of New York plans for the total development of State-supported higher education. Each unit of State University is locally administered, and students apply directly to the institution for admission.

Although State University of New York is the second largest state university in the country, its students have the additional advantages of attending small colleges.

The State University motto is: "Let Each Become All He Is Capable Of Being."

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