

*THE
NEW YORK
STATE SCHOOL
OF
CLAY WORKING
AND CERAMICS
AT
ALFRED UNIVERSITY
ALFRED, N.Y.*

1930 · 1931

ALFRED UNIVERSITY PUBLICATION

New York State School of 'Clay' Working
and Ceramics

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COLLEGE CALENDAR

First Semester, 1930-1931

Entrance examinations	Monday	1930 Sept. 15
"Freshman Week"	Tues. and Wed.	Sept. 16-17
Registration for Seniors, Juniors, and Sophomores	Thurs. and Fri.	Sept. 18-19
Instruction begins	Monday	Sept. 22
Mid Semester grades	Thursday	Nov. 20
Thanksgiving Day, holiday	Thursday	Nov. 27
Founders' Day	Friday	Dec. 5
Christmas Recess begins	Thursday evening	Dec. 18
CHRISTMAS RECESS		1931
Instruction resumed	Tuesday morning	Jan. 6
Mid-year examinations begin	Friday	Jan. 23
Examinations end; semester ends	Friday evening	Jan. 30

Second Semester

Instruction begins	Wednesday morning	Feb. 4
Mid-semester grades	Thursday	Mar. 26
Easter Recess begins	Thursday evening	April 2
EASTER RECESS		
Instruction resumed	Monday morning	April 13
Final examinations begin	Friday	May 29
Memorial Day	Saturday	May 30
Senior examinations end	Tuesday	June 2
Under-class examinations end	Friday	June 5
Junior examinations end	Tuesday	June 9
NINETY-FIFTH COMMENCEMENT		
Annual Concert	Saturday evening	June 6
Annual Sermon before Christian Associations	Sunday morning	June 7
Baccalaureate Sermon	Sunday evening	June 7
Alumni Association Directors' meeting	Monday afternoon	June 8
Commencement Play	Monday evening	June 8
Class breakfasts and reunions	Tuesday morning	June 9
Annual meeting of Trustees	Tuesday morning	June 9
Annual meeting of Corporation	Tuesday afternoon	June 9
Class-day Exercises	Tuesday afternoon	June 9
Alumni Banquet	Tuesday evening	June 9
Commencement Exercises	Wednesday morning	June 10
Alumni Association, Public Session	Wednesday afternoon	June 10
President's Reception	Wednesday evening	June 10
SUMMER VACATION		

Summer Session, 1931

Term begins	Monday	July 6
Term ends	Friday	Aug. 14

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First Semester, 1931-1932

		1931
Entrance examinations	Monday	Sept. 21
"Freshman Week"	Tues. and Wed.	Sept. 22-23
Registration for Seniors, Juniors, and Sophomores	Thurs. and Fri.	Sept. 24-25
Instruction begins	Monday	Sept. 28
Mid semester grades	Thursday	Nov. 19
Thanksgiving Day, holiday	Thursday	Nov. 26
Founders' Day	Saturday	Dec. 5
Christmas Recess begins	Thursday evening	Dec. 17
CHRISTMAS RECESS		1932
Instruction resumed	Tuesday morning	Jan. 5
Mid year examinations begin	Friday	Jan. 29
Examinations end; semester ends	Friday evening	Feb. 5

Second Semester

Instruction begins	Wednesday morning	Feb. 10
Mid semester grades	Thursday	Mar. 24
Easter Recess begins	Thursday evening	Mar. 24
EASTER RECESS		
Instruction resumed	Monday morning	April 4
Memorial Day, half holiday	Monday	May 30
Final examinations begin	Friday	June 3
Senior examinations end	Tuesday	June 7
Under class examinations end	Friday	June 10
Junior examinations end	Tuesday	June 14

NINETY-SIXTH COMMENCEMENT

Commencement Play	Saturday evening	June 14
Annual Sermon before Christian Associations	Sunday morning	June 12
Baccalaureate Sermon	Sunday evening	June 12
Alumni Association Directors' meeting	Monday afternoon	June 13
Annual Concert	Monday evening	June 13
Class breakfasts and reunions	Tuesday morning	June 14
Annual meeting of Trustees	Tuesday morning	June 14
Annual meeting of Corporation	Tuesday afternoon	June 14
Class day Exercises	Tuesday afternoon	June 14
Alumni Banquet	Tuesday evening	June 14
Commencement Exercises	Wednesday morning	June 15
Alumni Association, Public Session	Wednesday afternoon	June 15
President's Reception	Wednesday evening	June 15

SUMMER VACATION

Summer Session, 1932

Term begins	Tuesday	July 5
Term ends	Friday	Aug. 12

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NEW YORK STATE SCHOOL OF CLAY- WORKING AND CERAMICS

In founding this school in the year 1900 and placing it under the control of Alfred University, the Legislature of the State of New York recognized not only the importance of education in the pursuit of industry and industrial art but also the fact that such education can best be pursued in co-operation with coordinated studies in the field of liberal arts.

The aims of education are vision and skill. Industry is making greater demands than ever upon the character and qualities of its employees, and the teaching profession calls for ability and personality of a superior order.

To enable its graduates to meet these requirements in their chosen careers, the School has been established. The studies relating to the arts and industries of ceramics are numerous and varied. Physics and Chemistry are fundamental and are closely followed by mechanical knowledge and manual dexterity. Engineering looks to production on a large scale, while Applied Art plans to beautify the product and enhance its appeal to the consumer.

The New York State Legislature has recently granted \$175,000 for a new ceramic building which will accomodate the departments of drawing and design and the courses in advanced engineering and technology. The building will be located north of the present building and is expected to be ready for occupancy in September, 1932.

There are two courses of instruction, each of which extends over four years and is equivalent to an accepted college course. In the course in Ceramic Engineering, instruction is given in the preparation and use of clays and other ceramic materials; in the use of machines, molds and dies for the shap-

ing of various products and in the design and operation of all descriptions of kilns and furnaces. Lectures and laboratory exercises are arranged for the planning and preparation of ceramic materials including clay bodies, glazes, glasses, enamels and colors. Graduates are thus qualified to occupy positions as ceramic chemists, technical experts, or department managers.

The course in Applied Art is open to both men and women. Those taking this course are given instruction in drawing, painting, and design, thorough training in ceramic technique, practice, and theory, and in the allied crafts, including decorative textiles. Students showing special ability may elect additional courses in metal work and jewelry.

The purpose of this course is to meet the industrial need for those who can not only produce hand wrought ware but who can create and execute original work in accordance with the requirements of modern factory processes.

Graduates are entitled to a Special Provisional Certificate for the teaching of art in the Public Schools of the State of New York. A permanent Certificate may be granted upon the completion of a two credit course in life drawing within three years after graduation.

College Year

The college year consists of two semesters of about seventeen weeks each. There is a vacation at Christmas of about two weeks, a week's recess at Easter, and a summer vacation of about thirteen weeks.

Class Exercises

The class period, lecture or recitation, is one hour; the laboratory period is two hours. There are no classes on Saturday or Sunday.

Unit of Credit

One class period per week for one semester is taken as the unit of credit and is called a semester hour. For gradu-

ation a credit of one hundred and forty-two semester hours is required.

System of Grading

The work of students in each subject is graded as A, excellent; B, good; C, fair; D, poor; E, conditioned failure; F, failure; I, incomplete; W, withdrawn.

Scholarship Indices

For determining scholarship and for awarding honors the office uses a system of point values corresponding to the above grades as follows: each hour at A is equivalent to 3 points; at B, to 2; at C, to 1; at D, to 0; at E, to -1; at F, to -2; at I, to -1, at W, to -1. At intervals the Registrar determines a scholarship index for every student and for student groups. These indices are obtained by dividing the total number of points by the total number of hours.

Absences

Regular attendance at class exercises is required. Absences per semester from class not to exceed the following numbers may be permitted: in a one hour credit course, 2 absences; in a two hour credit course, 3; in a three hour credit course, 5; in a four hour credit course, 6; and in a five hour credit course, 7. Excused absences shall count as one-half of an absence. Two tardies shall count as one absence. Penalties for excess absences and exceptions from penalties on account of good scholarship may be found in the complete set of regulations on absences which is printed in the student Hand-book (published each year).

Examinations

Final examinations are held at the close of each semester, in addition to occasional written tests during the semester. Fees will be charged for all examinations taken by those not regular members of classes, or taken at other times than those appointed for the class examinations.

Registration

All students will register at the Registrar's office on the days given under "College Calendar"; new students entering at the beginning of the second semester will register on the first day thereof. Any student not registering on the days set therefor will be charged a fee of five dollars for late registration.

Each student is expected to register for at least sixteen hours, but may not register for more than seventeen with the following exceptions; (1) physical training and assembly may be taken in addition to the maximum of seventeen hours; (2) if a student has had an average standing of B or higher in the preceding semester, he may register for more hours with approval of the office.

In order that a student may be entitled to the privilege of registration for the following semester,

Freshmen are required to have a minimum scholarship index of 0.

Sophomores are required to have a minimum scholarship index of 0.15.

Juniors are required to have a minimum scholarship index of 0.25.

Seniors are required to have a minimum scholarship index of 0.30.

Specials are required to have a minimum scholarship index of 0.25.

For graduation it is required that a student have a minimum scholarship index of 0.8 for his entire course.

Fees

Matriculation (all new students)	\$ 5 00
Graduation	10 00
Medical and Infirmary, per semester	6 00
Reading room, per semester	2 00
Athletics, per semester	10 00
College Paper (<i>Fiat Lux</i>), Subscription \$1.25. Student Campus Tax, 75 cents per semester	2 00

EXTRA FEES, per semester, for the use of instruments, apparatus, and laboratory materials:

Chemistry 1, 5, each	8 00
Chemistry 2, 3, 7, 10, each	10 00 or 15 00
Chemistry 4	15 00
Drafting	2 00
Gymnasium (freshmen, sophomores)	2 00
Physics 1b, 4, each	5 00
Surveying	5 00
Industrial Mechanics, 9, 12, each	5 00
Industrial Mechanics, 6, 7, 8, each	8 00

MISCELLANEOUS FEES AND DEPOSITS:

Chemistry breakage deposit, Chemistry 1, per year	10 00
Chemistry breakage deposit, Chemistry 2, 3, 4, 5, 7, 10, each, per year	15 00
Room deposit, at Burdick Hall, per year	10 00
Room deposit, at Ladies Hall, per year	10 00

Room Deposits must be paid in advance at time rooms are reserved. In case a student fails to occupy a room so reserved the deposit is forfeited. Upon surrender of the room in good condition at the close of the school year the deposit will be refunded to the student.

Special examinations (final and mid-semester), each....	5 00
Special tests, each	1 00
Late registration (All students not registering on registration days, and all students who are absent from all classes on the first day of a semester)	5 00

Semester bills for fees will be issued on or before the fifteenth of October and February, and must be paid at the office of the Treasurer before the first of the following month. Students who fail to comply with this regulation are reported to the Dean of the college, and are rendered liable to suspension.

Rooms and board, including fuel, can be obtained in private families for \$8.00 to \$10.00 per week. Board in clubs organized and managed by the students themselves varies from \$5.00 to \$6.00 per week according to the means and inclinations of the students.

Estimated Annual Expenses

Excluding cost of clothing and travel, one can go through a college year by close economy upon \$300, and, by exercising care, upon \$400. An allowance of \$450 is comfortable.

Board, \$5.00 to \$6.00 per week	\$175—\$200
Rooms	60— 110
Laundry	20— 30
Books	25— 35
Class dues, etc.	10— 25
Total for year	\$290—\$400

Self-help

Many of the graduates of the school have been persons of very limited means who worked their way through. While the school cannot guarantee work to all applicants, enterprising students can usually find employment in the town with satisfactory compensation for all the time they can profitably spare from their studies. Some earn enough to meet the greater part of their expenses. Students should distinctly understand that when they attempt entire self-support they will find it necessary to lengthen their term of study.

ADMISSION

A candidate for admission to the freshman class must be (1) at least sixteen years of age, (2) of good moral character, and (3) a graduate of an approved four-year high school. The particular requirements for entrance to college explained below cover in each case not less than a four-year preparatory or high-school course.

Preparatory work is estimated in "units". The "unit" represents a course of five recitations weekly throughout an academic year of the preparatory school. Fifteen "units" or an equivalent and graduation from the school are definite requirements for unconditioned entrance.

Entrance Requirements

ENGLISH—3 units. The candidate must be familiar with elementary rhetoric, both as a science and an art, and must be proficient in spelling, punctuation, idiom, and division into paragraphs. Preparation must include the work in English prescribed by the various college associations.

Each student must be able to pass an examination upon the books selected from the list prescribed by the college entrance associations. The following ten are recommended: Shakespeare, *Julius Caesar* and *The Merchant of Venice*; Addison, *The Sir Roger de Coverley Papers*; Goldsmith, *The Deserted Village*; Scott, *Ivanhoe*; Hawthorne, *The House of the Seven Gables*; Irving, *Sketch Book*; Ruskin, *Sesame and Lilies*; Lowell, *The Vision of Sir Launfal*; Longfellow, *Courtship of Miles Standish*.

In addition to the above a thorough study of each of the works named below is required. The examination will be upon subject matter, form, and structure.

Shakespeare, *Macbeth*; Milton, *L'Allegro, Il Penseroso, and Comus*, or Tennyson, *Idylls of the King*; Burke, *Speech on Conciliation with America*, or Washington, *Forewell Address*, and Webster, *Bunker Hill Oration*; Macaulay, *Life of Johnson*, or Carlyle, *Essay on Burns*.

FOREIGN LANGUAGES—4 units. Latin grammar and composition; Cæsar, four books of the *Gallic War*; Cicero, six orations; Virgil, six books of the *Aeneid* or equivalents; or four units from not more than three of the following: Latin, Greek, German, French, Spanish.

MATHEMATICS—2 units. Elementary algebra, including fundamental operations, factoring, fractions, ratio, proportion, radicals, quadratics; plane geometry, including the straight line, angle, circle, proportion, similarity, and areas.

SCIENCE—1 unit. Biology, botany, physiology, zoology, physical geography, physics, or chemistry. Any one subject may be offered.

ELECTIVE—5 units in addition to the above subjects. Candidates may substitute two units of science or one unit of science and one unit of advanced mathematics for two units of foreign language.

Summary

English	3 units
Mathematics	2 units
Foreign languages	4 units
Science	1 unit
Elective	5 units

Admission is gained, either on certificate or on examination, as follows:

Admission on Certificate

COLLEGE BOARD EXAMINATIONS. A statement from the College Board certifying that a student has satisfactorily passed the College Board examination in any subject will be accepted as credit in full for that subject.

REGENTS CREDENTIALS. The credentials of the University of the State of New York are accepted instead of an examination in the subjects required for admission, so far as such credentials cover these requirements. (For description of subjects, see *Entrance Requirements*).

PRINCIPALS' CERTIFICATES. Certificates are also accepted from principals of preparatory or high schools, provided such schools are known to the faculty for thoroughness of instruction. The certificate must show that the applicant is a graduate of a four-year high school. The certificate must also specify, in connection with each subject, the year in which it has been given, the extent to which it has been pursued, the amount of time given to it, and the degree of the applicant's proficiency, and must clearly show that the student has met the requirements in every way. Principals of high schools who desire to have their students admitted on certificate are invited to correspond with the Registrar, who will provide them with blank standard certificates of recommendation.

Admission on Examination

Candidates who fail to present satisfactory certificates must pass a written examination in the required subjects.

For the convenience of students not having such certificates, entrance examinations are held at Alfred on the first day of registration week (Monday, September 21, 1931).

Conditioned Students

No student may enter the freshman class conditioned in any subject.

Admission to Advanced Standing

Students from other colleges having a course equivalent to that of Alfred may enter at the point from which they take dismissal, upon presentation of satisfactory certificates of standing and character. Such students should request the Registrar or corresponding official of the institution

from which they wish to be transferred to forward to the Registrar of Alfred University the following information:

1. A statement of their entrance units, including the date of their graduation from high school.
2. A transcript of their college credits.
3. A letter of honorable dismissal signed by the proper official.
4. A statement to the effect that they are eligible to return to the institution which they are leaving.

Industrial Experience

Each candidate for a degree in Ceramic Engineering is required to spend two summer periods of ten weeks each, or the equivalent, in an approved industrial plant and to turn in a satisfactory report, together with a certifying letter from the person in charge of the work. For each summer period one hour credit will be given.

With the approval of the director, which should be obtained not later than the close of the Sophomore year, a candidate for a degree may offer a thesis in some branch of ceramic research. The title of the thesis must be chosen before November 1st of the Senior year and a typewritten copy of the completed work must be deposited with the director not later than May 1st next following.

Graduation

Upon students who satisfactorily complete the course in Ceramic Engineering, Alfred University will confer the degree of Bachelor of Science (in Ceramic Engineering), and upon students who satisfactorily complete the course in Applied Art the degree of Bachelor of Science (in Applied Art)

COURSES OF STUDY

Course in Ceramic Engineering

First Year

<i>First Semester</i>		<i>Second Semester</i>	
Mathematics 1	5	Mathematics 1	5
Chemistry 1	4	Chemistry 1	4
English 1	3	English 1	3
Ceramics 1	1	Ceramics 1	1
Drafting	3	Drafting	3
Physical Training	1	Physical Training	1
Assembly	1½	Assembly	½
17½		17½	

Second Year

<i>First Semester</i>		<i>Second Semester</i>	
Mathematics 3a	3	Mathematics 3b	3
Physics 1	5	Physics 1	5
Chemistry 2	4	Chemistry 3	4
Ceramics 2	3	Ceramics 2	3
Economics	2	Economics	2
Physical Training	1	Physical Training	1
Assembly	½	Assembly	½
18½		18½	

Third Year

<i>First Semester</i>		<i>Second Semester</i>	
Mechanics	3	Mechanics	3
Chemistry 6	3	Chemistry 6	3
Ceramic Engineering 1	3	Ceramic Engineering 1	3
Chemistry 4	3	Chemistry 5	3
Mineralogy	3	Geology	3
Elective	3	Elective	3
18		18	

Fourth Year

<i>First Semester</i>		<i>Second Semester</i>	
Ceramic Engineering 2	4	Ceramic Engineering 2	4
Physics 2	3	Power and Machinery	2
Power and Machinery	2	Professional English	2
Ceramic Calculations	2	Summer Practice	1
Summer Practice	1	Elective	9
Elective	6		
18		18	

The elective is to be chosen, with the consent of the Director, from the following subjects: Assembly, four hours; Chemistry 7, six hours; German or French, twelve hours; Economics, twelve hours; Music, six hours; Surveying, four hours; Thesis, four hours; Woodshop, four hours; Architectural Drafting, three hours; Topographical Drawing, three hours. Elements of Optical Mineralogy, four hours, (students having satisfactory index).

Courses in Applied Art

First Year

<i>First Semester</i>		<i>Second Semester</i>	
Ceramic Chemistry	1	Ceramic Chemistry	1
Pottery 1	1	Pottery 1	1
Ceramics 1, Lecture and Laboratory	1	Ceramics 1, Lecture and Laboratory	1
Drawing 1a, Perspective	3	Drawing 1a, Perspective	3
Drawing 1b, Lettering	1	Drawing 1b, Lettering	1
Mechanical Drawing	2	Mechanical Drawing	2
Design 1	2	Design 1	2
English 1	3	English 1	3
Modern Language	3	Modern Language	3
Physical Training	1	Physical Training	1
Assembly	½	Assembly	½
<hr/>		<hr/>	
18½		18½	

Second Year

<i>First Semester</i>		<i>Second Semester</i>	
Ceramics 2, Lecture	1	Ceramics 2, Lecture	1
Ceramic Laboratory	2	Pottery 2	2
Drawing 2	4	Drawing 2a, Life	2
Design 2	2	Drawing 2b, Pen and Ink	2
English 2	3	Design 2	2
Modern Language	3	English 2	3
Elementary Psychology	2	Modern Language	3
Physical Training	1	Elementary Psychology	2
Assembly	½	Physical Training	1
		Assembly	½
<hr/>		<hr/>	
18½		18½	

Third Year

<i>First Semester</i>		<i>Second Semester</i>	
Pottery 3a	3	Pottery 3a	3
Pottery 3b	2	Metal Work	2
*Ceramics 3, Laboratory	2	*Ceramics 3, Laboratory	2
Drawing 3	2	Drawing 3	2
Design 3	2	Design 3	2
Educational Psychology	3	Principles of Education	3
History of Western Europe	3	History of Western Europe	3
History of Education	2	History of Education	2
<hr/>		<hr/>	
19		19	

* In some cases Junior Methods will be substituted for Ceramics 3.

Fourth Year

<i>First Semester</i>		<i>Second Semester</i>	
Pottery 4	3	Pottery 4	3
*Ceramics 4	2	*Ceramics 4	2
Weaving	1	Weaving	2
Woodworking	1	Special Methods in Drawing	4
Practice Teaching	2	Design 4	2
Design 4	2	History of Art	2
History of Art	2	General Methods of Education	1
General Methods of Education	3		
<hr/>		<hr/>	
16		16	

* In some cases Drawing 4 will be substituted for Ceramics 4.

DEPARTMENTS OF INSTRUCTION

Description of Courses

CERAMIC TECHNOLOGY

Professor Binns

Professor Merritt

1. Lectures on the origin, properties, and uses of clays and other ceramic materials. Types of ware and methods of manufacture. Elementary glaze and body composition. History of Ceramics.

Laboratory practice in the operations involved in manufacture. The preparation and use of forms, molds, and dies. Making saggers, jiggering, pressing, and casting pottery. Making brick and tile. The general use of the machine equipment.

First year. One hour lecture and two hours laboratory. *One hour.*

2. Lectures on the occurrence, classification, and identification of clays. The manufacture of all classes of ceramic products. The theory and practice of drying and burning. The compounding of clay mixtures, and the production and use of glazes and colors. The glaze formula.

Laboratory practice in clay testing. The measurement of the physical properties of clays and the compounding of bodies and glazes. Kiln firing.

Second year. Two hours lecture and four hours laboratory. *Three hours.*

3. Laboratory practice for art students. The production of form by molding. The preparation of glazes for decorative pottery. Technical problems.

Third year. Four hours laboratory. *Two hours.*

4. Thesis in applied art.

Fourth year. Four hours laboratory. *Two hours.*

PROFESSIONAL ENGLISH

Professor Amberg

A course in the use of English in the Engineering profession. Technical descriptions and the writing of reports.

Fourth year. Two hours lecture and recitation. *Two hours. II.*

CERAMIC ENGINEERING

Professor Amberg

1. Lectures are given on the chemical, physical, and mineralogical changes which take place in clays, bodies, and glazes during their preparation, drying and burning. Details of different types of plants, such as brick, pottery, refractories, etc., are discussed.

Laboratory practice includes the testing of clays and other ceramic materials and the production of bodies, glazes, and completed wares.

Third year. Two hours lecture and four hours laboratory. *Three hours.*

2. The theory and practice of methods employed in enameling cast iron and steel. Laboratory exercises in production.

The making, calibration and use of various instruments; pyrometers, gauges and testing apparatus.

Fourth year. Two hours lecture and recitation and four hours laboratory. *Four hours. I.*

3. The application of general engineering principles to the ceramic industry. The topics studied include refractories, glass, lime, plasters and cements; drying, heat reactions and kiln construction.

The laboratory work consists of methods of testing and, so far as possible, methods of production.

Fourth year. Two hours lecture and recitation and four hours laboratory. *Four hours. II.*

MINERALOGY. This course includes an introduction to crystallography, microscopic mineralogy and the identification of minerals and rocks by inspection and simple tests.

Third year. Two hours lecture and one hour laboratory. *Three hours. I.*

GEOLOGY. A course in general geology especially arranged for the ceramic engineer. It deals with the development and the features of the earth's surface, with special reference to the geology of ceramic materials.

Third year. Three hours lecture and recitation. *Three hours. II.*

CERAMIC CALCULATIONS

Professor Amberg

Solution of chemical and physical problems involved in compounding ceramic mixtures including wet blending, and slip corrections. The solving of every day factory problems occurring in the manufacture of clay wares. Lecture and recitations.

Prerequisite, Mathematics 6 or equivalent. Fourth year. *Two hours. I.*

POWER AND MACHINERY

The aim of this course is to familiarize the student with the installation, maintenance and repair of shop power and machinery. With this end in view, a study will be made of internal combustion engines, ceramic machinery and methods of power transmission. Under repair will come bearing removal, shaft straightening, belt lacing, valve grinding and such other operations as are necessary to the proper maintenance of a shop. Laboratory exercises will be carried on in which each student will be required to perform the different operations. During the last half of the second semester a study of the Strength of Materials will be taken up. This will include elastic and ultimate strength, general properties, moments for beams and columns, torsion of shafts, elastic deformities, reinforced concrete, combined stresses, and resilience. *Two hours.*

CHEMISTRY

Professor Rice

Professor Cortelyou

A. ELEMENTARY CHEMISTRY. Required of all applied art freshmen. The principle object of the course is to give the student the opportunity to learn the language of chemistry. Simple chemical problems must be mastered. One lecture period each week. *One hour credit. I.*

B. CERAMIC CHEMISTRY. Required of all applied art freshmen. The chemistry of glazes will be the principle topic of discussion. Some of the more common phenomena met with in ceramic work will be interpreted from a chemical view point. One lecture period each week. *One hour credit. II.*

1. INORGANIC CHEMISTRY. The fundamental principles of chemistry are taught by a systematic study of the non-metallic elements during the first semester, followed by a broadening of the student's knowledge by study of the metallic elements during the second half of the year. The laboratory work, in which the student is expected to demonstrate facts and principles for himself, follows closely upon class room discussion. Lectures and recitations, three periods; laboratory, two periods. Textbook, Deming, *General Chemistry.* *Four hours.*

2. QUALITATIVE ANALYSIS. The purpose of this course is not, primarily, to teach the student to make analyses: it is intended, in the classroom, to give a further and more thorough training in the fundamentals of chemistry and in the laboratory to acquire a better technique in the handling of apparatus and materials and to learn the chemistry of the metals. The writing of equations and the solution of problems are emphasized. Simple salts and mixtures are issued for analysis. Prerequisite, Chemistry I. *Four hours. I.*

3. QUANTITATIVE ANALYSIS. This course is devoted to volumetric and elementary gravimetric analysis. In the lab-

oratory emphasis is placed upon integrity, accuracy and the development of a good analytical technique. In the classroom the principles of stoichiometry, law of mass action, solubility product, etc., are covered. Numerous problems are assigned. Lectures and recitations, one period; laboratory, three periods. Text book, Popoff, Quantitative Analysis. Prerequisite Chemistry 2. *Four hours. II.*

4. **QUANTITATIVE ANALYSIS.** This is an advanced course, covering the analysis of silicate rocks, clays, etc. Lectures and recitations, one period; laboratory two periods. Textbooks, Fales, Inorganic Quantitative Analysis; Hillebrand, The Analysis of Silicate and Carbonate Rocks. Prerequisite, Chemistry 3. *Three hours. I.*

5. **FUELS AND COMBUSTION.** The analysis of solid, liquid and gaseous fuels and their products of combustion is discussed in the class room and carried out in the laboratory. Industrial Stoichiometry, covering combustion calculations on furnaces and kilns, heat losses, etc., is included in the course. Lectures and recitations, two periods; laboratory, one period. Textbooks, Parr, Fuel, Gas, Water and Lubricants; Lewis and Radach, Industrial Stoichiometry. Prerequisite, Chemistry 3. *Three hours. II.*

6. **PHYSICAL CHEMISTRY.** The characteristics of chemical substances which determine their properties and reactions, such as the pressure-volume relations of gases, the properties of solutions, the equilibria and rate of chemical changes, heterogeneous equilibrium in terms of the phase rule, thermochemistry and colloidal chemistry are considered in this course. The student is required to solve a large number of problems pertaining to the subjects discussed. Prerequisite, Chemistry 3, Mathematics 3a and 3b and Physics 1a and 1b. *Three hours.*

APPLIED ART

Professor Fosdick

Professor Nelson

Professor Harder

Miss Hewitt

Although pottery is the craft in which the school offers exceptional facilities, additional courses in the crafts of metal work and decorative textiles are offered with the view of giving the student discrimination in the selection and use of materials. This provides graduates with sufficient background to enable them to qualify as teachers of general crafts.

Work in the Department of Applied Art is supplemented by those academic subjects necessary to obtain the Teachers' Provisional Certificate for Drawing and Design in New York State.

Pottery

Pottery 1, 2, 3, 4, cover methods of production of pottery including, building, the potter's wheel, mold construction with intensive design stressing the individuality of each method. The structure of glazes and a wide range of decorative processes are included.

The Department is fully equipped for ceramic research. This includes kilns of various construction and temperature range burning gas, kerosene with forced draft and electricity.

Pottery 3b covers the production of tiles with reference to their various architectural applications.

Drawing

DRAWING 1a. Freehand perspective. A thorough course in the fundamentals of freehand drawing, including principles of perspective, pencil technique, still life drawing in accented line and in light and shade, elementary composition, and outdoor sketching.

DRAWING 1b. Lettering and commercial art.

DRAWING 2. Still Life in Charcoal.

DRAWING 2a. Figure Study.

DRAWING 2b. Composition and pen and ink.

DRAWING 3. Free and decorative treatment of water color technique in the studio and out of doors.

DRAWING 4. Special methods and practice teaching. Prerequisites: drawing and design 1, 2, 3, elementary psychology, mechanical drawing, educational psychology, principles of education. A course in the teaching and supervising of art in public schools. Practice teaching in local schools, one hour each week. Term paper.

Design

DESIGN 1. Study of the elements of structural design in relation to the nature and purpose of materials used in the crafts, such as wood, metal, woven fabrics, clay and glass. Lectures and required reading from historical sources and current magazines. Nature study for appreciation of structural line and form. Emphasis in the first year is placed on the possibility and limitations of materials used in the decorative crafts rather than on pattern as such.

DESIGN 2. Development of related pattern for the decorative crafts. Color study including theory of color.

DESIGN 3. Dyeing, block printing, weaving, stitchery. Designing and execution in several of the above mentioned techniques, table-cloths appropriate for formal and informal use collaborating with ceramic design.

DESIGN 4. Thesis in Design—emphasizing in detail one of the decorative crafts.

Methods of Teaching Art

The Senior course in special methods of Teaching Art includes a study in organizing an art curriculum: one hour prac-

tice teaching per week in the local schools; and 10 hours observation in other schools.

Weaving

The course in weaving covers the use of looms in secondary and high schools. Four heddle looms are set up and thoroughly studied. Pattern weaving and originating of patterns, and the construction of simple looms are included.

Metal Working

The course in metal working includes both hammered and constructed work. A correlation between the pottery and metal work is effected by making metal fittings as for lamps and teapots. Simple pieces of jewelry teach stone setting and other fundamental processes. The course fits a student for camp, institutional and secondary school teaching.

History of Art

A survey of the fine arts and crafts through the ages. Text book, "*Art Through the Ages*," Helen Gardner.

DEPARTMENT OF INVESTIGATION AND RESEARCH

Clay Testing

Professor Binns

Professor Merritt

The State School of Ceramics is fitted, and the experts in charge are qualified, for the professional examination and testing of clays for economic purposes. Such clays may be classified under the following heads:

- (a) Kaolin, white burning residual clay.
- (b) Kaolin, white burning, washed for market, used in the manufacture of pottery, porcelain, and paper.
- (c) Ball clay, white or cream burning, sedimentary clay of high plasticity, used in pottery manufacture.
- (d) Stone ware clay, gray or cream burning, more or less sandy in character, used in stoneware manufacture.
- (e) Fire clay, buff or white burning, refractory, used for manufacture of fire brick.
- (f) Brick clay including colored clays and shales, used for the manufacture of brick and tile of various qualities and descriptions.

For each of the above classes special tests are necessary and the charges made are proportionate to the work required.

A report upon each sample will be furnished and must be understood to refer only to the samples submitted unless the experts are instructed to examine the deposit and prepare their own samples, in which case special charges will be made. The report includes physical tests and chemical analysis where necessary.

Advice as to washing or other preparation of the clay is also given, together with an opinion as to the industry to which the material may be applied.

Industrial Problems

Professor Binns

Professor Amberg

Professor Merritt

The problems incidental to the manufacture of clay wares are regularly investigated at the school. Manufacturers are invited to present questions for study. Persons resident within the State are entitled to reasonable services without charge.

REGISTRATION OF STUDENTS 1930-1931

SENIORS

NAME	RESIDENCE	COURSE
Allen, Mary Brown	Alfred	Art
Beckerman, Luke Frederick	Chicago, Ill.	Art
Beeton, Earl Everett	East Rochester	Eng.
Brown, Albert Stokes	Kenmore	Eng.
Bryant, Eugene Edward	Macedon	Eng.
Cauger, Edward Hassel	Lackawanna	Eng.
Chamberlain, Katherine LaRouette	Angelica	Art
Clarke, William Lewis	Niagara Falls	Eng.
Ellison, Henry William	Waverly	Eng.
Gallup, John Lyman	Canaan	Eng.
*Gilder, Charles Louis	Dansville	Eng.
Gilleran, George Thomas	Hornell	Eng.
Hill, George Wesley	Pittsford	Eng.
Jaquiss, Gerard Johnston	Floral Park	Eng.
Keller, Roscoe Watson	Kenmore	Eng.
Klem, Myrtle Anne	Hamilton	Art
Leber, Roberta Naomi	West Nyack	Art
Love, Marion Winifred	Cuba	Art
Lyon, Margaret Covert	Elmira	Art
Manleri, Theresa Marie Antoniette	Salamanca	Art
Marley, Ruth Irene	Hornell	Art
Martin, Paulina Mercia	Jamestown	Art
Messimer, LaVerne Allen	Manchester	Eng.
Perry, Ada Eudora	Jordan	Art
Phelps, Marjorie Frances	Granville	Art
Sackett, Harry Nelson	Bolivar	Eng.
Stortz, Avis	Warsaw	Art
Titsworth, Alfred Albert	Alfred	Art
Travis, Thurlow Talbot	Hornell	Eng.
Wallm, Virginia Deems	Hornell	Art
†Zschlegner, Emile George	Wellsville	Art

*Not in Attendance

† Work completed in Summer School.

JUNIORS

Austin, Francis Ernest	Machias	Eng.
Barton, Meredith	Emporium, Pa.	Eng.
Bender, Miriam Lewis	Pleasantville	Art
Blawat, Michael Frank	Alfred	Eng.
Burrows, Marion Alene	Friendship	Art
DeLaney, Sidney Reed	Williamsport, Pa.	Eng.
Flint, Robert Leon	Hornell	Eng.
Fuller, William Cooper	Palatine Bridge	Eng.
Gagliano, Francis William	Valley Stream	Eng.

NAME

RESIDENCE

COURSE

Gaulrapp, Richard Alfred	Queens Village	Eng.
Green, Wilbur Fisk	Horseheads	Eng.
Harwood, Lyman See	Lockport	Eng.
Heard, Marian Gladys	West New Brighton	Art
Hillmiller, John Karl	Salamanca	Eng.
Huffcut, Harold Winters	Auburn	Eng.
Lockwood, Mervin Dale	Portland Mills, Pa.	Eng.
McCourt, Francis Higgins, Jr.	Hempstead	Eng.
McLean, Wilma Christine	Hempstead	Art
Maroney, Paul Anthony	Salamanca	Art
Martin, Pauline	Alfred	Art
Mitchell, Ruth Lois	Hornell	Art
Mott, Hazel Evelyn	Mt. Kisco	Art
Nobbs, Robert Charles	Eden	Eng.
Rogers, Elizabeth Louise	Daytona Beach, Fla.	Art
Schlehr, Walter Raymond	Cleveland, Ohio	Eng.
Shremp, Raymond Maxwell	Rochester, Pa.	Eng.
Smigrod, Frieda Edythe	Cedarhurst	Art
Smith, Bernadine Frances	Alfred	Art
Split, Howard Arthur	Rochester	Eng.
VanSicklen, August Kenneth	Islip	Eng.
Whitfield, Anne Morehead	Richmond, Va.	Art

SOPHOMORES

Armstrong, Elnora Maxine	Alfred	Art
Bailey, Theodore Dockstader	Ravena	Eng.
Blomquist, Frank Ernest	Ebenezer	Eng.
Breeman, Leonard, Jr.	Alfred	Eng.
Cass, Thaddeus Guilford	Richburg	Eng.
Chamberlain, Richard Lee	Cuba	Eng.
Chous, Michael	Spring Valley	Eng.
Colgrove, Marcia Elizabeth	Hornell	Art
Crandall, Eugene Rogers	Alfred	Eng.
Dickens, Donald Applebee	Elmira Heights	Eng.
Gaiser, Arthur	Elmira	Eng.
Goetchins, Donald Ralph	Queens Village	Eng.
Hallenbeck, Donald Clarence	Ravena	Eng.
Hallett, Crawford William	Canisteo	Eng.
Hallock, Kittridge Jennings	Islip	Art
Hammann, Karl Mutchler, Jr.	Jamaica	Eng.
Hewey, Charles James	Queens Village	Eng.
Holden, John Crawford	Cuba	Eng.
Hopper, Lawrence Steinhauer	Buffalo	Eng.
Jenks, Olive Chamberlin	Newtonville, Mass.	Art
Klinger, Ralfe Weisel	Hastings, Neb.	Eng.
Kopko, Frank	Elmira	Eng.
Lathrop, Kathryn Josephine	Angelica	Art
Lewis, Richard Orville	Attica	Eng.

NAME	RESIDENCE	COURSE
Marley, Doris Elaine	Hornell	Art
Merck, Walter John	Queens Village	Eng.
Misel, Carl Henry, Jr.	Naples	Eng.
Muller, Frederick Wentworth	Bellerose	Eng.
Ostrander, Van Rensselaer	Olean	Eng.
Parmalee, Vivian Hope	Oneida	Art
Perry, Regal Orson	Whitesville	Eng.
Razey, Robert Martin	Hornell	Eng.
Reynolds, Owen Joseph	Addison	Eng.
Robinson, Ruby Donna	Andover	Art
Roe, Leon Margeson	Hornell	Eng.
Rowley, Robert Warner	Silver Creek	Eng.
Schiffner, Louis James	Little Valley	Eng.
Shappee, Harold LeRoy	Elmira	Eng.
Sixbey, Carlton Buck, Jr.	Mayville	Eng.
Smith, Wilma Myrtle	Cuba	Art
Steenrod, Harold Francis	Belmont	Eng.
Taylor, Virginia Maxson	Alfred	Art
Towner, Joseph Benjamin	Hornell	Eng.
Vezzoli, Dante	Winfield	Eng.
Westphal, Mildred Lu	Floral Park	Art

FRESHMEN

Arwine, Alva Stewart	Hornell	Eng.
Aschman, Elsie Eva	New York City	Art
Aust, Frances Ruth	Salamanca	Art
Bakker, Lammecbiena	Plainfield, N. J.	Art
Bastow, Edna Margaret	Dobbs Ferry	Art
Bidwell, Joseph Norton	Friendship	Eng.
Bonnet, Elsie Ferrar	Ridley Park, Pa.	Art
Burdick, Gerald Frederick	Little Genesee	Eng.
Coveney, Robert George	Elmira	Eng.
Cruskie, Edward Francis	Utica	Eng.
Curley, Everett Patrick	Troy	Eng.
DiCandia, James Vincent	Bath	Eng.
Dashew, Ruth Bernice	Suffern	Art
Davis, Earl Kilmer	Rushford	Eng.
Day, Mary Kathryn	Hornell	Art
Deegan, Joseph Eugene	Elmira	Eng.
Dewey, Benjamin Franklin	Wellsville	Eng.
Duxbury, William	Syracuse	Eng.
Eaton, Dorothy Baldwin	Byron	Art
Eaton, Dorothy Helen	Oneida	Art
Eaton, Harry Kendig	Westfield	Eng.
Fowler, William Mansfield	Savannah	Eng.
French, Ralph Dillenbeck	Avoca	Eng.
Gillett, John Eugene	Skaneateles	Eng.
Gregory, Glenn Albert	Skaneateles	Eng.
Hale, Stanley Falver	Greenwood	Eng.

NAME	RESIDENCE	COURSE
Hall, Elsie Mae	Buffalo	Art
Hanigan, David John	Camillus	Eng.
Hanks, Frederick Graham	Bolivar	Eng.
Hawk, Mary Janet	Kittanning, Pa.	Art
Henning, William John	Ridgefield Park, N. J.	Eng.
Henry, Lester Max	Hornell	Eng.
Hill, Richard Kermit	New York City	Eng.
Holstein, Seymour Schuyler	New York City	Eng.
Horton, John Spicer	Whitesville	Eng.
House, Dorothy Ruth	Chester	Art
Hubertus, William Peter	Wellsville	Eng.
Ingersoll, Dorothea Jeannette	Fillmore	Art
Jaquiss, Harry Mason, Jr.	Floral Park	Eng.
Johns, Persis Meriam	Binghamton	Art
Keane, John Edward	Dobbs Ferry	Eng.
Kilburn, Theola Evelyn	Little Valley	Art
Kingsley, William Paul	Newburgh	Eng.
Krasity, Vera Mary	Riverhead	Art
Kuenn, Whitney William	Franklinville	Eng.
LaBelle, Arthur Thomas	Sodus	Eng.
Larson, Helga Evelina Ottilia	Keesville	Art
Leach, Kenneth Hugh	Elmira	Eng.
Leach, Marjory Phyllis	Whitesville	Art
Morris, Lewis Donald	Conesus	Eng.
Murray, John Delaney	Elkland, Pa.	Eng.
Newton, Devaulson Dan	Homer	Eng.
Olmsted, Marjorie	Waverly	Art
Olney, Mary Rightmire	Waverly	Art
Pelone, Anthony Joseph	Elmira	Eng.
Place, Margaret Ellen	Hornell	Art
Reitz, Adolph Gottfried	Bolivar	Eng.
Robson, Charles Herbert	Dansville	Eng.
Ryll, Frank Maynard	Nunda	Eng.
Simpson, Paul Thurston	Friendship	Eng.
Smalley, Ruth Dolores	Rochester	Art
Smathers, Helen Louise	Bradford, Pa.	Art
Smathers, Virginia Lee	Bradford, Pa.	Art
Sterling, Harry Earl	Paris, France	Eng.
Stillman, Winifred Elizabeth	Alfred	Art
Swiller, Frances	New York City	Art
Taft, Robert James	Hornell	Eng.
TenBroeck, Theodore Roosevelt	Newburgh	Eng.
Tobin, William Augustave	Cortland	Eng.
Tolbert, Walter Ivan	Elmira	Eng.
Train, Mary Stillwell	Savannah, Ga.	Art
Turner, Cornelius Francis	Newburgh	Eng.
Vincent, Jennie Louise	Alfred	Art
Wagner, Dorr William	Dansville	Eng.
Walton, Miriam Helene	Canastota	Art

NAME	RESIDENCE	COURSE
Warner, Christine Marjorie	Silver Creek	Art
Webber, Beryl Arlene	Lyndonville	Art
Wessels, Vincent Eldridge	Avoca	Eng.
Weston, Vera Mildred	Niagara Falls	Art
Wheeling, Hobart Ferdinand	Pittsburgh, Pa.	Eng.
Young, Albert Vincent	Hornell	Eng.

SPECIALS

Munroe, Helen Barnard, A. B.	Longmeadow, Mass.	Art
Wooh, Tee Ho	Pyeong Yang, Korea. .	Ceramics

SUMMARY

	Art	Engineering	Total
Seniors	15	14	29
Juniors	12	19	31
Sophomores	11	34	45
Freshmen	32	49	81
Specials	1	1	2
	<hr/> 71	<hr/> 117	<hr/> 188

