# ALFRED UNIVERSITY PUBLICATION

# New York State School of Clay Working and Ceramics

# Catalogue Number



1928 -- 1929

Alfred, N. Y.

FEBRUARY, 1929

No. 2

Published Monthly by Alfred University. Entered as second class matter at Alfred, N. Y., under act of Congress, July 16, 1894.

Accepted for mailing at special rate of Postage provided for in Section 1103, Act of Oct. 3, 1917, authorized on July 8, 1918.

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# BOARD OF MANAGERS

(Appointed annually by the Trustees of Alfred University)

BOOTHE C. DAVIS, President

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# College Calendar

# First Semester 1928-1929

		1928
Entrance examinations	Monday	Sept. 17
" Freshman Week"	Tues, and Wed, S	ept. 18-19
Registration for Seniors, Juniors, and Sophomores	Thurs, and Fri. S	ept. 20-21
Instruction begins	Monday	Sept. 24
The state of the s		Nov. 22
Mid-semester grades	Thursday	
Thanksgiving Recess begins Thanksgiving Recess	Wednesday evening	Nov. 28
Instruction resumed	Monday morning	Dec. 3
Founders' Day	Wednesday	Dec. 5
Christmas Recess begins	Thursday evening	Dec. 20
CHRISTMAS RECESS	,	
		1929
Instruction resumed	Tuesday morning	Jan. 8
Mid-year examinations begin	Friday	Jan. 25
Examinations end; semester ends	Friday evening	Feb. r
Second Seme	ester	
Instruction begins	Wednesday morning	Feb. 6
Mid-semester grades	Thursday	Mar. 21
Easter Recess begins	Tnesday evening	Mar. 26
EASTER RECESS	# 4%###################################	
Instruction resumed	Wednesday morning	Apr. 3
Momorial Day, half holiday	Thuraday	May 30
Final examinations begin	Friday	May 31
Senior examinations end	Tuesday	June 4
Under-class examinations end	Friday	June 7
Junior examinations and	Tuesday	June 11
NINETY-THIRD COMMENCEMENT		3000
Annual Sermon before Christian Association	a Sainedau metenian	June 8
Annual Concert	Saturday evening	June 8
Baccalaureate Sermon	Sunday evening	June 9
Alumui Association Directors' meeting	Monday afternoon	June 10
Commencement Play	Monday evening	June 10
Class breakfasts and reunions	Tuesday morning	laus ii
Annual meeting of Trustees	Tuesday morning Tuesday afternoon	June II
Annual meeting of Corporation Class-day Exercises	Tuesday afternoon	June II June II
Alumni Banquet	Tuesday evening	Tune II
Commencement Exercises	Wednesday morning	
Aluguni Association, Public Session	Wednesday afternoor	
President's Reception	Wednesday eventug	
SUMMER VACATION		
Summer Session, 1929		
Term begins	Mouday	July 🐒
Term ends	Friday	Aug. 9

## First Semester 1929--1930

1929

July 7

Aug. 15

Monday

l riday

Term begins

Term ends

		192	
Entrance examinations		Sept. I	
"Freshman Week"	Tues, and Wed. Sep	1, 17-1	ð
Registration for Seniors, Juniors, and Sophomores	Thurs, and Fri, Se	pt. 19-2	o
Instruction begins	Monday	Sept. 2	3
Mid-semester grades	Timrsday	Nov. 2	X.
Thanksgiving Recess begins Thanksgiving Recess	Wednesday evening	Nov. 2	7
Instruction resumed	Monday morning	Dec.	2
Foundare' Day	Thursday	Dec.	5
Christmas Recess begins	Thursday evening	Dec, 1	9
CHRISTMAS RECESS		193	şc)
Instruction resumed	Tnesday morning	Jan,	7
Mid-year examinations begin		Jan. s	24
Examinations end; semester ends	-	Jan. 3	3I
Second Sen	nester		
Instruction begins	Wednesday morning	Feb.	5
Mid-semester grades	Thursday	Apr. 1	10
Easter Recess begins	Tuesday evening	Apr.	(5
FASTER RECESS	•		
Instruction resumed	Wednesday morning	Apr. 2	23
Final examinations begin	Friday	May 3	30
Memorial Day, half holiday	Friday	May 3	30
Senior examinations end	Tnesday	June	3
Under class examinations and	Friday	June	6
Junior examinations end	Tuesday	June	10
NINETY-FOURTH COMMENCEMENT			
Annual Sermon before Christian Association		June	7
Commencement Play	Saturday evening	Inne	7
Baccalaureate Sermon	Snuday evening	Jone	8
Alumni Association Directors' meeting	Monday afternoon	June	g
Annual Concert	Monday evening	Inne	9
Class breakfasts and rennions	Tnesday morning	3	ĮΩ
Annual meeting of Trustees	Tuesday morning	•	ro
Annual meeting of Corporation	Tuesday afternoom	•	TQ.
Class-day Exercises	Tuesday afternoon		TO
Alumni Banquet	Tuesday evening	.,	10
Commencement Exercises	Wednesday morning		II
Alumni Association, Public Session	Wednesday afternoon		11
President's Reception	Wednesday evening	June	X E
SUMMER VACATION			
Summer Sessi	ion, 1930		

## OFFICERS OF INSTRUCTION

BOOTHE COLWELL DAVIS, Ph. D., D. D., LL. D., President Professor of Ethics.

CHARLES F. BINNS, S. D., Director Professor of Ceramic Technology.

MURRAY J. RICE, A. M., Ph. D. Professor of Chemistry.

Frank C. Westendick, S. M.
Professor of Ceramic Engineering.

CLARENCE W. MERRITT, S. B.
Assistant Professor of Ceramics.

Marion L. Fosdick Professor of Ceramic Art.

CLARA K. NELSON
Professor of Drawing and Design.

CHARLES M. HARDER
Assistant Professor of Drawing and Ceramic Art.

#### OTHER EMPLOYEES

Curtis F. Randolph Treasurer and Accountant.

COBTEZ R. CLAWSON, Litt. B., A. M. Librariau,

RUTH DAKE WHITFORD Secretary.

Eva B. Middaugh Matron

NATHAN F. TUCKER Assistant.

A. L. WHITFORD
Janitor and Machinist.

# 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 for the pursuit of industry and industrial art but also the fact that such education can best be pursued in cooperation 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.

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

## System of Grading

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

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

The maximum number of absences allowed per hour credit per semester is three (3). That is, in a two hour course, six (6) absences are allowed; in a three hour course, nine (9); in a five hour course, fifteen (15). Overentting will reduce the student's grade to F. Excess absences resulting from siekness or other justifiable causes may be excused by vote of the Committee on Absences. Two tardinesses count as one absence.

#### 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 bours, 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.

## College Fees

Matriculation (all new students)	\$ 5	00	
Matriculation (all new students)	10	00	٠.
- どしゅう ほっかんもそのか	150		
*Tuition (10 to 18 hours), per semester			Ī,
mullion see hour (under 10 and over 15 moute), Por	15	00	
TOTAL CARE CARE		00	
artical and Infirmary, Der Selliester		00	
The distance proper nor cornector			
Athletics, per semester		00	
College paper (Figt Law), per semester	1	25	
EXTRA FEES, per semester, for the use of instruments,			3
EXTRA PEES, per sentencer, for the			3
apparatus, and laboratory materials:	8	00	. 0
Chemistry 1, 5, each	w 15	00	W
Chemistry 1, 5, cach	. ĵ	aa-	Š
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with a marking and the Company of th		OÛ.	
Cympasium (freshmen, sophomores)	2	ų ų.	Ť,
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Thursian in A 9808		űü.	
Theresh of come 1			
	5	00	Š
Surveying			힣

Industrial Mechanics, 9, 12	5	00
Industrial Mechanics, 6, 7, 8	8	00
MISCELLANEOUS FEES AND DEPOSITS:		
MISCELLMINIOUS CIERS AND DEFOSITS.		
Chemistry breakage deposit, Chemistry 1, per year	10	00
Chemistry breakage deposit, Chemistry 2, 3, 4, 5, each.		
per year	15	00
Room deposit, at Burdiek 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 relanded to the student.		
Special examinations (final and mid-semester), each	5	00
Special tests	1	00
Late registration (All students not registering on regis- tration days, and all students who are absent from all		
classes on the first day of a semester)	5	00

Semester bills for college 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, 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 \$450, and, by exercising care, upon \$500. An allowance of \$650 is comfortable.

Board, \$5.00 to \$6.00 per week	\$175-\$200
Rooms	60 110
Laundry	20- 30
Books	25 35
Class ducs, etc.	10 25
College tuition, incidentals, and extras	325 375
Tultion free to residents of New York State	

Total for year ......\$615—\$775

#### 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 carn 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 cutrance.

## 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, idiou, 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 Morchant 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 Temyson, Idylls of the King; Burke, Speech on Conciliation with America, or Washington, Farewell Address, and Webster, Bunker Hill Oration; Macaulay, Life of Johnson, or Carlyle, Essay on Burns.

Foreign Languages—4 units. Latin grammar and composition; Casar, four books of the Gallie War; Cicero, six orations; Virgil, six books of the Aenvid 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
English	2 units
Foreign languages	4 units
Foreign languages	1 unit
Science	E waste
Elective	9 amies

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.

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 (Monday, September 16, 1929).

#### 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 eigible 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

	m. m. 7. 1457	THO THE THEST THE	
	First	Year	
First Semester		Second Semester	
Mathematics 1	. 5	Mathematics 1	-
Unemistry 1	à	Chemistry 1	, 5
English I	- G	English 1	. 4
Ceramies 1	. 1	Ceramics 1	. 3
Drauting	9 3	Drafting	
Physical Training	1	Physical Training	. 1
			.1.
	17_		17
First Semester	Secon	d Year	VI T.
Mathematica Co		Second Semester	
Mathematics 3a	3	Mathematics 3b	3
Physics 1 Chemistry 2		Physics 1	5
Ceramics 2	4	Chemistry 3	4
Deonomies	3	Ceramies 2	2
Physical Training	2	Economics	9
rapelour realing	1	Physical Training	1
	18	_	******
	Third	Year	18
First Semester	1		
Mechanics	3	Second Semester	
Unemistry 6	3	Mechanica	3
Ceranuc Engineering 1	3	Chemistry 6	3
reology	3	Ceramic Engineering 1	3
memistry 4	3	Mineralogy	3
Slective	3	Chemistry 5	3
		Elective	3
	18		18
F1	ourth		==
First Semester		Second Semester	
bramic Engineering 2	4	Ceramic Engineering 3	
"MYSICS 2 .	3	Power and Machinery	4
ower and Machinery	2	Professional English	ž a
Ciullic Calculations	2	Summer Practice	<i>z</i> 1
ummer Practice	1		9 T
Moctive	6		ý,
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1	8	1	8

The elective is to be chosen, with the consent of the Director, from the following subjects: Assembly, four hours; Chemistry 7, six hours; Chemistry 9, four hours; German or French, twelve hours; Introduction to Reconomics, six hours; Labor Problems, three hours; Music, six hours; Principles of Public Finance, three hours; Surveying, four hours; Thesis, four hours.

## COURSE IN APPLIED ART

## First Year

First Semester	Second Semester
Pottery 1 1	Pottery 1 1
Ceramics 1, Lecture and	Ceramics 1, Lecture and
Laboratory 1	Laboratory 1
Drawing 1. Perspective 4	Drawing 1, Perspective 4
Drawing 1a, Lettering 1	Drawing 1a, Lettering 1
Mechanical Drawing 1	Mechanical Drawing 1
Design 1 2	Design 1 2
English 1 3	English 1 3
Modern Language 3	Modern Language 3
Physical Training 1	Physical Training 1
£	<u> </u>
17	17
/// / / / / / / / / / / / / / / / / /	

#### Second Year

First Semester	Second Semester
Pottery 2         2           Ceramics 2, Lecture and Laboratory         3           Drawing 2, Charcoai         2           Design 2         2           English 2         3           Modern Language         3           Elementary Psychology         2           Physical Training         1	Ceramics 2, Lecture and Laboratory Drawing 2, Charcoal Design 2 English 2 Modern Language Elementary Psychology
18	18

#### Third Year

First Semester	Second Semester
Pottery 3       3         Ceramics 3, Laboratory       2         Studio Management 1       2         Drawing 3, Watercolor       2	Pottery 3
Design 3	Design 3
17	17

#### Fourth Year

### First Semester  Pottery 4	Second Semester Pottery 4 Ceramics 4 Studio Management Special Methods in Drawing and Practice Teaching Design 4 History of Art	4
18		~ €

# DEPARTMENTS OF INSTRUCTION

Description of Courses

# CERAMIC TECHNOLOGY

Professor Binns

## Assistant 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 easling pottery. Making brick and tile. The general use of the machine equipment.

First year. One hour lecture and two hours laboratory.

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 elay 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.

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 Westendick

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, refractory, 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 hour lecture and four hours laboratory. Three hours.

2. The theory and practice of methods employed in enameling east 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.

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. I.

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. II.

## CERAMIC CALCULATIONS

#### Professor Westendick

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 clastic and ultimate strength, general properties, moments for beams and columns, torsion of shafts, clastic deformities, reinforced concrete, combined stresses, and resilience. Two hours.

#### CHEMISTRY

#### Professor Rice

- 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 npou 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 is 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 laboratory 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 Sileate 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 Radasch, 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 equilibrium and rate of chemical changes, heterogeneous equilibrium in terms of the phase rule, thermo-chemistry 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 Assistant Professor Harder

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.

To obtain the Teachers' Provisional Certificate for Drawing and Design in New York State, the necessary subjects in Education are taken in the third and fourth years with psychology as a prerequisite. To obtain the Permanent Certificate it is necessary to take a two credit summer course in Life Drawing.

#### Pottery

Pottery 1, 2, 3, 4, cover the methods of the production of pottery and include the following; building by hand, throwing on the potter's wheel, the construction of molds, and casting and pressing from molds. Intensive design for these methods stresses the individuality of each and emphasizes creative form rather than surface decoration.

The structure of glazes in a wide range of textures and colors is closely studied as well as decorative processes for clay surfaces and glaze treatments such as slip painting, sgraffito, and glaze inlays.

The study of kilns of various types with which the school is well equipped includes their placing and firing. It is felt that to the potter extensive experience with kilns is indispensable. Whenever possible students build for themselves the type of kiln in which the fire is applied by a torch.

#### Drawing

Drawing 1. 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 1a. Lettering and commercial art.

Drawing 2. Still life drawing in charcoal, pen and ink technique, and advanced composition.

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 I, 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 erafts, 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 erafts. 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 erafts.

#### History of Art

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

## Clay Testing

#### Professor Binns

#### Assistant 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 elay, white or cream burning, sedimentary elay 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 elay, 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 Westendick Assistant 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 1928-1929

#### SENIORS

9EN18	JNO
NAME	RESIDENCE COURSE
Bookheim, Arnold	Albany Eng.
undett. Roy Francis	· · Hornell Eng.
Pau John Lloyd	- Buffalo Pag.
Carpenter, Harold Frederick	· Canisteo Eng.
Claire, Ruth Evelyn	Affred Art
predericks, Dean Hayes	Flemington, Pa Eng.
trench, Gordon Elmer	· Rochester Eng.
Gridley, Daniel Philo	· Wellsville Eng.
Hawley, Dorothy Adell	Rochester Art
moughaw, Doris May	Alfred Art
Holmes, Lallian Wald	Alfred Art
Hulse, Walter Thurston	· Chester · Eng.
†Humphrey, Ingraham	Lima Eng.
Hyland, David Lee	Honeoye Falls Eng.
Koch, Evelyn Antoinette	Gueens Village Art
Lewis, Gordon Evans	Wellsboro, Pa Eng.
Lewis, William George	Watertown Eng.
Lyon, Ruth Virginia	Bradford, Pa Art
Mulroy, James Philip	Buffalo Eng.
Ostrander, George William	Almond Eng.
Potter, Florence Sally	Friendship Art
Saunders, Mildrena Lilian	Relmont Art
Shardlow, Laurence Russel	North Bloomfield Eng.
Smith, Kenneth Eugene	
Stearns, Rhoda Isabel	11 002 (10) 1
Thomas, Clarice Marie	* * * * * * * * * * * * * * * * * * * *
Tredennick, William Trelear	
Tucker, Nathan Fred	
Vores, Adelaide Pearce	-
Welts, William Ward Williams, George LaRoutte	
Williams, George Landoute	· · · · · · · · · · · · · · · · · · ·
Willson, Herbert Smith	
A Anna	

† Work completed in Summer Session.

#### JUNIORS

Armstrong, Loland Reuben	Alfred	Tens
Bassett, Robert Bliss		
Brown, Robert Ellis	Almond	Eng.
Burdick, Milton DeWitte	Alfred	Eng.
Claire, Walton Irving	Alfred	Eng.
Fabianic, William Lewis	Ridgway, Pa	Eng.
Wardner, Paul Vickors	Canisteo	Art
Wilder, Charles Louis	Dansville	Юпқ.
Greene, Perne Ramona	Alfred	Art
Mileens, Frances Br	alboa Heights, Canal Zone	Art.
Hallock, Dorothy Emma	Oneida	Art

		ASS:
	RESIDENCE COURSE	NAME
NAME	Floral Park Eng.	Owens, Carl Merritt
Jaquiss, Gerard Johnston	Greenwich, Conn Eng.	Perry, Ada Eudora
	Greenwich, Com. Art	Phelps, Marjorie France
	Canistee Art	Robinson, Lester Lelan
Lynn, Don Carlisle	Smithton, Pa Eng.	Sackett, Harry Nelson
Lynn, Don Carriste McGraw, Jack Edgar	Arkport Eng.	Shekett, Harry Welson Shremp, Raymond Max
MoGraw, Jack Edgu	Hornell Art	Stortz, Avis
Marley, Ruth Irene	Canisteo Eng.	Stortz, Avis
Mays, James Carter	Akron Art	Swarthout, Betty Mary
	There Choofer 1911B.	Travis, Thurlow Talbot
Nielson, John	Daytona Beach, Fla Art	Wallm, Virginia Deems
	Amoralica	White, William Frank
	T factors	Young, William Hartze
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	Trainnichin Lilli.	z <sub>schi</sub> egner, Emil Georg
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marks A Library As a library at the first of t	Alfred Station Eng. 300	Acker, Lois French
	Ellicotiville Art	Annis, Norman Louis
Weishan, Theora Mae	Word day 1	Austin, Francis Ernest
		Bafley, Theodore Docks
SOPHOMO	RES	Blawat, Michael Frank
	Granford Conn Art	Blomquist, Frank Erne
Allen, Mary Brown	Wellsville ling.	Bobinski, Ireno Maxine
	E. Rochester Eng.	Burrows, Marion Aien
	Pleasantville Art	Callahan, Lawrence Wa
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		Chubb, Borton John
was a sum and a result of the sum	Doughville Art	Crozier, Gerald William
	Frankova Alt	Davison, William Lynn
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	Macadon	DeLa Vergne, Louis Be
	Denventawnev Ens.	Dixon, Margaret Mary
	Lackawanna ing.	Flint, Robert Leon
	nolmont Art	Fuller, William Cooper
Chambouloin Karnarine: Latitude	Aviacoro Walls	L. Gagliano, Francis Willi
commission 1470 linum 1.63V B	Waverly Eng.	Gaulrapp, Richard Alfre
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Carrier William Chicit	remerand Bus	Heard, Marian Gladys
TENT CLASSIC WARRY	Alloutown Mile	Hopper, Lawrence Stein
LINE Les Genres	Vormow	I Huffeut, Harold Winter
Tration Pougon Walson	Art	Keats, John Berle
results Claim White	The military	Knex. Orville Lester
TELENA BENEFITA ABBO	Manufahin Eng	Leyenberger, Edna Clai
tana Kannelli C	Titrat Nunck	Lockwood, Mervin Dale
* * * * Dobarta Naolli	Art	<ul> <li>McConnell, John Milto</li> </ul>
Tours Movement COVers	ATT ATT	1 McCourt, Francis Hige
Transford Thorogo Marie Addition	Colomones	McLean, Wilma Christ
Monopost Paul Anthony	16 an abantar	A Mahnken, Harry Jr.
Manaiman Laverne Allell	av manavanda	Martin, Pauline
namiton Tobii Holbrook **********	Sills and the sill of the sill	Matties, Doris Elizabet
Neiger, Frederick Albert		
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NAME	RESIDENCE	COURSE		
Owens, Carl Merritt Perry, Ada Eudora Phelps, Marjorie Frances Robiuson, Lester Leland Sackett, Harry Nelson Shremp, Raymond Maxwell Stortz, Avis Swarthout, Betty Mary Travis, Thurlow Talbot Wallm, Virginia Deems White, William Frank Young, William Hartzell Zafike, Vincent John Zschiegner, Emil George, Jr.	Watsontown, Pa. Jordan Granville Manchester Bolivar Rochester, Pa. Warsaw Hornell Hornell Hornell Massena Hornell Dansville Wellsville	Art Art Eng Eng Art Art Eng Art Eng Eng.		
FRESHMEN				

#### Manchester ..... Art ..... Angola ..... Eng Machias ..... Eng. t .............. kstader ...... Rayena ..... Eng. k .......... Affred ...... Eng. est ...... Rbonezer ..... Eng. Riverhead ..... Art 0 ........... me ........ Priendship ..... Art alter ...... Hornell ..... Eng. Emma ..... Priendsbip ..... Eng. . . . . . . . . . . . . . . . . . n ...... McGraw ..... Eng. Siver Creek ..... Eng. n ......,,..,. Williamsport ..... Eng. Boyd ..... Genesee ..... Eng. Hamilton ..... Art , .,,,,,,,,,,,,,,, Mornell ..... Eng. Palatine Bridge ..... Eng. Valley Stream ..... Eng. litam ...... Gueens Village ..... Eng. red ....,.... Ravena ..... Eng. ngworthy ..... . . . . . . . . . . . . . . . . . . Cameron ...... Art Lockport ..... Eng. Staten Island ..... Art inhauer ...... Buffalo ..... long. Cleveland, Ohio ..... Eng. ers ..... 816 Sharpsville, Pa. ..... Eng. Wellsville ..... Art New York City ..... Art are ...... Portland Mills, Pa. .... Eng. e ............ on ...... Roehester ..... Eng. Hempstead ..... Eng gins ..... stine ...... Hompstead ..... Art Floral Park ..... Eng. \*\*\*\*\*\*\*\*\*\*\* Alfred ..... Art . . . . . . . . . . . . . . . . . . attice, Doris Elizabeth Eaton ..... Art

NAME	RESIDENCE	COURSE
Mitchell, Ruth Lois Monks, George Fred Mooney, George William Mott, Hazel Evelyn Nobbs, Robert Charles Phillips, Helen Virginia Pierce, George Edward Robinson, Kenneth Alvin Rogers, Elizabeth Louise Sadler, Dorotha Emma Schlehr, Walter Raymond Schlick, Sophia Sixbey, Carlton Buck Jr. Smith, Bernadine Frances	Hornell Valley Stream Hamilton Mt. Kisco Eden Rochester Machias New York City Daytona Beach, Fla. Wellsville Cleveland, Ohio Munnsville Mayville Alfred	Art Eng. Art Art Ling. Art Eng. Art Eng. Art Eng. Art Art Art Ling. Art
Splitt, Howard Arthur	Rochester Cohocton	
Stowell, Genevieve Ruth	Ebenezer	
VanSicklen, August Kenneth Vance, Lester Trevett Warde, Stephen Anton	Islip	Eng.
Young, Esther Margaret	Williamson	Art.

	Total	
	Art	Eng.
Seniors	11	22
Juniors	11	18
Sophomores	19	26
Freshmen	24	33
	65	99

