ANNOUNCEMENT
OF
FINE AND INDUSTRIAL
ARTS COURSES
FOR
1921-1922

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INTRODUCTORY STATEMENT.

There is no service rendered to humanity by any group of people more worth while than that rendered by the teacher. Nor is there any kind of work which is so interesting as the building and molding of character and the development of the mental grasp of young people. The living, growing material that the teacher develops in the schoolroom and passes across to the world, is much more interesting to handle than is the dead, passive material handled in most other lines of work.

These outlines of courses are offered with the idea that they may present unthought of possibilities to the student who is preparing to teach, or to the student who has not previously thought of teaching as an occupation.

BASAL REQUIREMENTS.

The three- and four-year courses in fine and industrial arts outlined in this bulletin are based upon the general professional curriculum of two years, (70 units). Of the seventy units of work included in the basal requirement, forty are of the general professional type, including the required six units in physical education, and thirty are elective, to be taken from the list of collegiate and special elective courses.

The Courses.

FIRST AND SECOND YEARS.

(Leading to the special elementary certificate.)

<table>
<thead>
<tr>
<th></th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Elements of sociology</td>
<td>4</td>
</tr>
<tr>
<td>b. Education and psychology</td>
<td>6</td>
</tr>
<tr>
<td>c. Practice teaching</td>
<td>10</td>
</tr>
<tr>
<td>d. California school law</td>
<td>2</td>
</tr>
<tr>
<td>e. Physical education</td>
<td>6</td>
</tr>
<tr>
<td>Study of the elementary school curriculum, including methods</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
</tr>
</tbody>
</table>

General collegiate courses...........24
Special electives in fine or industrial arts...........6

Total ................................ 70

NOTE: Part of the practice teaching may be in the special subjects.
THE COURSES IN FINE ARTS

One aim of the fine arts course is to qualify the teacher to teach
fine art as a special subject to meet the constantly growing demand.

Other aims are to give the teacher such a foundation for apprecia-
tion and judgment that she will use her art knowledge in her everyday
life, and to give her the methods by which she can impart it to chil-
dren that it will constantly function in their lives.

The principles of art are either used or abused. They can not be
separated from the production and choice of those things with which
man surrounds himself, his home, his garden, his work, his clothes.
Art expression is doing the common things of life in a beautiful way.

While the direct aims are professional, sufficient skill is acquired to
enable the student to branch into commercial lines should this ever
prove to be desirable.

<table>
<thead>
<tr>
<th>List of Courses.</th>
<th>Hours</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art Coach Class</td>
<td>35</td>
<td>0</td>
</tr>
<tr>
<td>Art I. Art structure</td>
<td>54</td>
<td>1½</td>
</tr>
<tr>
<td>Art II. Advanced applied design</td>
<td>72</td>
<td>3</td>
</tr>
<tr>
<td>Art III. History and appreciation</td>
<td>72</td>
<td>4</td>
</tr>
<tr>
<td>Art IV. Stage craft</td>
<td>72</td>
<td>4</td>
</tr>
<tr>
<td>Art V. Costume design</td>
<td>72</td>
<td>3</td>
</tr>
<tr>
<td>Art VB. Advanced costume design</td>
<td>54</td>
<td>2</td>
</tr>
<tr>
<td>Art VIA. Home decoration</td>
<td>72</td>
<td>3</td>
</tr>
<tr>
<td>Art VII. Advanced home decoration</td>
<td>54</td>
<td>2</td>
</tr>
<tr>
<td>Art VII. Drawing, painting and perspective</td>
<td>54</td>
<td>2</td>
</tr>
<tr>
<td>Art VIII. Advanced drawing and painting, landscape and figure</td>
<td>54</td>
<td>2</td>
</tr>
<tr>
<td>Art IX. Lettering, illuminating and posters</td>
<td>72</td>
<td>4</td>
</tr>
<tr>
<td>Art X. Illustration</td>
<td>54</td>
<td>2</td>
</tr>
<tr>
<td>Art XI. Art Methods I</td>
<td>27</td>
<td>1</td>
</tr>
<tr>
<td>Art XII. Art Methods II</td>
<td>36</td>
<td>2</td>
</tr>
<tr>
<td>Art XIII. Art Methods III</td>
<td>36</td>
<td>2</td>
</tr>
<tr>
<td>Art XIV. Sketch class</td>
<td>54</td>
<td>1½</td>
</tr>
<tr>
<td>Art XV. Life class</td>
<td>54</td>
<td>1</td>
</tr>
<tr>
<td>Art XVI. Modeling</td>
<td>54</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: The courses listed above are offered only as scheduled from semester to semester. To avoid misunderstandings, students wishing to take any of them should, before registration, secure from the proper officer the calendar and schedule of the special courses in fine arts.

Address: The Registrar
State Teachers College
San Diego, California.
In addition to the courses in fine arts, listed above, students who wish to complete courses for certification will be expected to take courses in the field of industrial arts, as follows:

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Hours</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary Industrial Arts I. Grades 1-4 emphasized</td>
<td>54</td>
<td>2</td>
</tr>
<tr>
<td>Elementary Industrial Arts II. Grades 5-9 emphasized</td>
<td>72</td>
<td>3</td>
</tr>
<tr>
<td>Industrial Arts I. Woodwork</td>
<td>90</td>
<td>3</td>
</tr>
<tr>
<td>Industrial Arts V. Mechanical drawing</td>
<td>90</td>
<td>3</td>
</tr>
<tr>
<td>Industrial Arts IX. Architectural drawing</td>
<td>90</td>
<td>3</td>
</tr>
<tr>
<td>Industrial Arts XII. Tin can toys and construction</td>
<td>36</td>
<td>1</td>
</tr>
<tr>
<td>Industrial Arts XIII. Art metal work</td>
<td>90</td>
<td>4</td>
</tr>
</tbody>
</table>

**DESCRIPTION OF THE COURSES IN FINE ARTS.**

**Coach Class in Art Structure.**

For all students not having had the equivalent in high school—an introduction to the fundamental elements and principles of space art.

**Art Methods I.**

Grades I-IV. Theory and practice with demonstration lessons.

**Art Methods II.**

Grades V-IX. Theory and practice with demonstration lessons.

**Art Methods III.**

Advanced theory, and curriculum planning.

**Art I. (Art Structure.)**

Continues the study of fine examples of painting, architecture, sculpture and handicrafts with the purpose of developing power to use principles of art through problems in composition and design.

**Art II. (Advanced Applied Design.)**

Advanced work in design applied through block printing, mono-printing, tie-dyeing, batik, painting, etc. It also includes principles applied to lettering and posters.

Prerequisite, Art Structure I.
Art III. (Art History and Appreciation.)
A study of architecture, sculpture, painting and handicraft from the
dawn of art to modern art, through illustrated lectures, research work
and discussion.

Art IV. (A Course in Art for the Stage.)
Posters, costumes and settings are designed for specific plays to be
produced by the Dramatic Society. A miniature stage is used for trial
effects.

Art V A. (Costume Design.)
A study of art elements and principles applied to dress in relation to
general and individual types.

Art V B. (Advanced Costume Design.)
A study of the history of costume. Problems in design are carried
out in actual materials. Blouses, smocks and other garments are designed
and made.

Art VI A. (Home Decoration.)
Elements and principles of art studied in relation to the house,
grounds, and room planning and decoration. Making the home beau-
tiful with small expense is stressed, also what to do with the old house
and furniture. Study of period furniture and its influence on modern
types.

Art VI B. (Advanced Home Decoration.)
Intensive study of period styles—study of rugs, furniture, textiles
and handicrafts in relation to house furnishing, with original designs,
in each. Color studies for rooms—details for fireplace, etc.

Art VII. (Drawing, Painting and Perceptive.)
Drawing and painting from still life, flowers, animals and figures,
working for interpretative line and free use of color. Study of per-
spective with problems in still life, and out-of-door sketching.

Art VIII. (Advanced Drawing and Painting.)
Advanced perspective in out-door sketching, and landscape painting,
with figure.

Art IX. (Lettering, Illuminating and Posters.)
Use of various pens and lettering brushes in mottoes, illuminated
texts, booklets and posters.
Art X. (Illustration.)
Study of modern illustrators and their types of work. Problems in illustrating children's stories, novels, etc., in wash drawings, etching or mono-printing and color.

Art XIV. (Sketch Class.)
Advanced landscape composition, including out-door and studio work.

Art XV. (Life Class.)
Advanced painting from costume model.

Art XVI. (Modeling.)
Modeling in clay from casts, illustration and life, in the round, in low relief and in intaglio.

THE COURSES IN INDUSTRIAL ARTS

"No study of the practical arts can be rated as satisfactory or complete which substitutes for education mere training, nor which subordinates education to training."—Bonser.

We recognize, however, that in order to obtain the greatest amount of education from the practical arts, the development of a reasonable amount of technical skill is necessary.

<table>
<thead>
<tr>
<th>List of Courses</th>
<th>Hours</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary Industrial Arts I</td>
<td>54</td>
<td>2</td>
</tr>
<tr>
<td>Elementary Industrial Arts II</td>
<td>72</td>
<td>3</td>
</tr>
<tr>
<td>Ind. Art I. Woodwork</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Ind. Art II. Woodwork</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Ind. Art III. Elementary Cabinet Work</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Ind. Art IV. Cabinet Work</td>
<td>90-180</td>
<td>3-6</td>
</tr>
<tr>
<td>Ind. Art V. Mechanical Drawing</td>
<td>90</td>
<td>3</td>
</tr>
<tr>
<td>Ind. Art VI. Mechanical Drawing</td>
<td>90</td>
<td>3</td>
</tr>
<tr>
<td>Ind. Art VII. Mechanical Drawing</td>
<td>90</td>
<td>3</td>
</tr>
<tr>
<td>Ind. Art VIII. Machine Drawing</td>
<td>90</td>
<td>3</td>
</tr>
<tr>
<td>Ind. Art IX. Architectural Drawing</td>
<td>90</td>
<td>3</td>
</tr>
<tr>
<td>Ind. Art X. Industrial Arts Methods</td>
<td>54</td>
<td>3</td>
</tr>
<tr>
<td>Ind. Art XI. Concrete Work</td>
<td>36</td>
<td>1</td>
</tr>
<tr>
<td>Ind. Art XII. Sheet Metal Work, Tin Can Toys</td>
<td>36</td>
<td>1</td>
</tr>
<tr>
<td>Ind. Art XIII. Art Metal Work</td>
<td>90</td>
<td>4</td>
</tr>
<tr>
<td>Ind. Art XIV. Printing</td>
<td>90</td>
<td>3</td>
</tr>
<tr>
<td>Ind. Art XV. Advanced Printing &amp; Organization</td>
<td>90</td>
<td>4</td>
</tr>
<tr>
<td>Ind. Art XVI. Turning</td>
<td>90</td>
<td>3</td>
</tr>
<tr>
<td>Ind. Art XVII. Leather Work and Shoe Repairing</td>
<td>54</td>
<td>2</td>
</tr>
<tr>
<td>Ind. Art XVIII. Electrical Work</td>
<td>36</td>
<td>1</td>
</tr>
<tr>
<td>Ind. Art XIX. Internal Combustion Engines</td>
<td>90</td>
<td>3</td>
</tr>
<tr>
<td>Ind. Art XX. Farm Mechanics</td>
<td>90</td>
<td>3</td>
</tr>
<tr>
<td>Ind. Art XXI. Elementary Pat. Work, Molding</td>
<td>90</td>
<td>3</td>
</tr>
<tr>
<td>Ind. Art XXII. Pottery</td>
<td>54</td>
<td>2</td>
</tr>
<tr>
<td>Ind. Art XXIII. Weaving</td>
<td>54</td>
<td>2</td>
</tr>
<tr>
<td>Ind. Art XXIV. Bookbinding</td>
<td>54</td>
<td>2</td>
</tr>
<tr>
<td>Ind. Art XXV. Basketry</td>
<td>54</td>
<td>2</td>
</tr>
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<tbody>
<tr>
<td>Art Coach Class or its equivalent</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Art XI. Art Methods I</td>
<td>27</td>
<td>1</td>
</tr>
<tr>
<td>Art XII. Art Methods II</td>
<td>36</td>
<td>2</td>
</tr>
<tr>
<td>Art III. Art History and Appreciation</td>
<td>72</td>
<td>4</td>
</tr>
<tr>
<td>Art IX. Lettering, Illuminating and Posters</td>
<td>72</td>
<td>4</td>
</tr>
<tr>
<td>Art I. Structure</td>
<td>54</td>
<td>1½</td>
</tr>
<tr>
<td>Art II. Advanced Applied Design</td>
<td>72</td>
<td>3</td>
</tr>
</tbody>
</table>

**DESCRIPTION OF COURSES IN INDUSTRIAL ARTS.**

**Elementary Industrial Arts I.**
Deals with the forms of industrial art practical in the first four grades. The projects involve weaving and dyeing in textiles and basketry, paper and cardboard construction, simple binding and work in clay and wood, all given in their relations to other subjects and human needs.

**Elementary Industrial Arts II.**
A course similar to the above, but with projects suitable to grades five to nine.

**Industrial Arts I. Elementary Woodwork.**
This course will show the possibilities of woodwork in the elementary grades. The reading of blueprints, the development of simple wood finishes, and study of the important woods form an essential part of the course. Shop work, demonstrations and lectures.

**(a)** Study of woods and their working qualities, points and enamels, mixture and application, making various silhouette and mechanical toys.

**(b)** Tool operations and the application of constructional principles suitable for sixth and seventh grade work. An analysis of tools and principles involved. Care and adjustment of tools, etc.

All projects adapted to grade work and classified by grades.

**Industrial Arts II. Advanced Woodwork.**
Tool operations and the application of constructional principles suitable for eighth grade work. An analysis of tools and principles involved. Proper care and adjustment of tools. Attention is given to the various methods of assembling, and several different finishes are developed. Projects are to a large extent typical of the eighth grade and include original designs. Shop work, demonstrations and lectures.

**Industrial Arts III.**
Elementary cabinet work. Tool and machine operations involving mortise and tenon joints. At least one simple problem in upholstery. Proper use of various clamps in assembling. Excursions to study various types of furniture.
Industrial Arts IV. Cabinet Work.

Tool, machine operation and finishing processes naturally included in cabinet work are taught. Advanced finishing operations are demonstrated. Upholstering or caning must be included in this project. Study of fine cabinet woods and selection of the same.

Industrial Arts V. Mechanical Drawing.

This course includes free-hand lettering, geometric constructions, simple working drawings, isometric and cabinet projections, shop sketching, tracing and blueprinting.

Industrial Arts VI. Mechanical Drawing.

This course includes free-hand lettering, evolutions, orthographic projections, sections, a few simple developments, shop sketching, furniture design, tracing and blueprinting.

Industrial Arts VII. Mechanical Drawing.

This course includes lettering, penetrations and developments, with practical applications to sheet metal drafting, tracing and blueprinting.

Industrial Arts VIII. Machine Drawing.

This course includes the drawing of simple machinery, standard fastenings, and machine parts or details, also the consideration and application of the rules and formulas from which the standard sizes are worked out.

Industrial Arts IX. Architectural Drawing.

This course includes simple house planning. A set of drawings to scale showing floor plan, elevations and some details of construction. A set of specifications wherein are stated the kind and qualities of materials to be used. A bill of materials and an estimate of labor cost.

Industrial Arts X. Special Methods.

Classification of tools, operations and projects. Planning of courses from the fifth grade through the high school. Equipment, costs and installation. Cost charts for various courses are worked out in class. General organization of material and its value as well as methods of presentation.

Industrial Arts XI. Concrete Work.

This course includes the study of materials and their values in the different mixtures. The proper mixture of concrete for different purposes and simple reinforcement, as used in posts, beams, tanks, walls, etc. Each student will make practical application of the above in the laboratory by making small test beams and breaking on small machine of compound levers, and by making a series of small useful and practical projects, as well as some larger class projects.
Industrial Arts XII. Sheet Metal Work—Tin Can Toys.
Use of ordinary sheet metal machines and tools, application and use of development drafting in the making of pans, measures, etc. Making of useful articles and toys from waste product (tin cans), such as cookey cutters, scoops, etc.

Industrial Arts XIII. Art Metal Work.
Instruction is given in etching, bending, soft and hard soldering, riveting, saw-piercing, enameling and raised work. Materials used are copper, brass and aluminum.

Industrial Arts XIV. Printing.
This course follows the logical order of processes in learning printing—composition, distribution, imposition, proofreading, press work, job printing, methods of illustrating. Class work—historic methods of transmitting knowledge, discovery of movable type, invention of printing press, composition of ink, monotype and linotype machines, methods of illustrating, excursions, etc.

Industrial Arts XV. Advanced Printing and Organization.

Industrial Arts XVI. Turning.
This work includes instruction in the proper care of the lathe and lathe tools, as well as practical turning between centers, also face plate and chuck work.

Industrial Arts XVII. Leather Work and Shoe Repairing.

Industrial Arts XVIII. Electrical Work.
Elementary switch and wire work, with special study of insulation. Elementary study of wireless with building of simple receiving set.

Industrial Arts XIX. Internal Combustion Engines.
This is entirely an informational course. Different types of carburetors, ignition systems, starters, engines, etc., are taken apart by the students, the various principles involved explained, the parts reassembled, adjusted and made to function in place on the machine.

Industrial Arts XX. Farm Mechanics.
Simple rope work, as splices, eyes, etc. Elementary forging, instruction in the building and care of fires, and the use of the various tools. Practice is given in the different processes such as drawing out, bending, fullering, swaging, upsetting, welding, tempering, etc. Study of materials.

Industrial Arts XXI. Elementary Pattern Work and Molding.
The principles of pattern construction, and the uses of the shrink rule, the finish allowance, draft allowance, fillets, etc., are practically taught by the making of one piece and split patterns with core prints and core boxes. The correctness of design and necessity for the various allowances are proved by actual molds and castings (in soft metal) made from these patterns. The making of molds from different kinds of patterns, the art of ramming, venting, parting, gate cutting, core making, and other molding processes, are taught through actual individual work.

Industrial Arts XXII. Pottery.

Industrial Arts XXIII. Weaving.
Weaving on two heddle and four heddle hand and floor looms with stress on color, harmony, pattern and workmanship. Also weaving on rug looms.
Industrial Arts XXIV. Bookbinding.

Bookbinding emphasizing the art quality and workmanship in hand-bound books and portfolios, and correlated with the lettering and illuminating of Art IX.

Industrial Arts XXV. Basketry.

Reed, raffia and native-material baskets, with emphasis on form, workmanship, coloring and preparation of materials.