

SECONDARY

Effective November 1, 1967

AUTHORIZATION. This certificate is required for teaching the designated fields in grades seven through twelve.

REQUIREMENTS

I. A bachelor's degree based upon a four-year curriculum in an accredited college.

II. Successful completion of *one* of the following:

A. A college curriculum approved by the New Jersey State Department of Education as the basis for issuing this certificate

OR

B. A program of college studies including:

*general
background*

1. A minimum of thirty semester-hour credits in *general background* courses distributed in at least three of the following fields: English, social studies, science, fine arts, mathematics, and foreign languages. Six semester-hour credits in English and six in social studies will be required.

2. A minimum of fifteen semester-hour credits in courses in *professional education* distributed over three or more of the following areas, including at least one course in each starred area. These fifteen credits do not include student teaching.

* Methods of teaching. This group includes such courses as methods of teaching in secondary schools, visual aids in education, and individualizing instruction.

*professional
education*

* Educational psychology. This group includes such courses as psychology of learning, human growth and development, adolescent psychology, educational measurements, and mental hygiene.

Foundations of education. This group includes such courses as history of education, principles of education, philosophy of education, comparative education, and educational sociology.

Curriculum. This group includes such courses as principles of curriculum construction, the high school curriculum, a study of the curriculum in one specific field, and extracurricular activities.

Guidance. This group includes such courses as principles of guidance, counseling, vocational guidance, educational guidance, research in guidance and student personnel problems.

*student
teaching*

3. One hundred and fifty clock hours of *approved student teaching*. At least ninety clock hours must be devoted to responsible classroom teaching; sixty clock hours may be employed in observation and participation. This requirement is in addition to the fifteen credits in professional education above.

*physiology
and
hygiene*

4. In accordance with the provisions of New Jersey Statutes (RS 18:13-4, 1903) applicants must take an examination in physiology and hygiene. In lieu of this examination the applicant may present college study in such areas as biology, personal health problems, community health, school health, family health, health counseling, nutrition, or health administration. This requirement does not apply for secondary school teachers certificates in the fields of art, health education, home economics, industrial arts, music, physical education, and library studies.



- Teaching Field. 5. At least one teaching field of twenty-four semester-hour credits is required, except in the comprehensive fields of home economics, industrial arts, music, science, and social studies, in which thirty semester hours are required. *Additional fields* may be added if the requirements indicated below are met. (Work within areas listed is recommended. Required areas of study are starred.)

<i>Minimum Semester Hours Required</i>		
<i>First Field</i>	<i>Additional Fields</i>	
24	18	ART Art
24	18	BUSINESS EDUCATION Bookkeeping and Accounting: Bookkeeping*, accounting*, business machines, business mathematics, and general business subjects. A minimum of twelve semester-hour credits is required in bookkeeping and accounting. Holders of this endorsement are authorized to teach business mathematics.
24	18	General Business Education: Principles or methods of business education*, economics*, business law*, business mathematics*, business organization and management, economic geography, finance, consumer education, marketing, merchandising
24	18	Secretarial Studies: Shorthand*, typewriting*, methods of teaching secretarial studies*, office practice, and general business subjects. There must be a minimum of six semester-hour credits in shorthand, and four semester-hour credits in typewriting, or the equivalent as determined by an accredited college approved for the preparation of business education teachers.
—	4	Typewriting: Four semester-hour credits in typewriting and a course in methods of teaching typewriting
24	18	HEALTH EDUCATION Health Education: Health problems, hygiene, normal diagnosis, nutrition, home hygiene, safety education
30	30	INDUSTRIAL ARTS AND HOMEMAKING Industrial Arts: Drafting and design, woodworking, electricity and electronics, power mechanics, graphic arts, metalworking, other areas. Some credits must be taken in five of the seven categories listed.
30	30	§ Home Economics: Food*, clothing*, child care
24	18	§ Clothing
24	18	§ Foods
24	18	LANGUAGE ARTS English: Literature, composition, oral English
24	18	Reading Improvement: Remedial reading, reading improvement, and related courses in child psychology and tests and measurements
24	18	Speech Arts and Dramatics: Speech fundamentals, public speaking, oral interpretation, dramatics
24	18	Foreign Languages
24	18	Library Studies: Cataloging, children's literature, reference work

*Required
§Valid in elementary grades

*Minimum
Semester
Hours Required*

*First
Field* *Additional
Fields*

MATHEMATICS

24 18 Mathematics: Algebra, geometry, trigonometry, calculus, and fundamentals of mathematical reasoning

MUSIC

30 30 Music: Vocal*, instrumental*

24 18 Instrumental Music

24 18 Vocal Music

PHYSICAL EDUCATION

24 18 Physical Education: Coaching, development of personal skills, nature and function of play, organization and administration of physical education, principles of physical education

SCIENCE

30 30 Science: Biological*, physics*, chemistry*, earth science

24 18 Biological Science: Biology, botany, zoology

24 18 Earth Science: Geology, geography, physiography, astronomy

24 18 General Science: Three sciences or survey courses in science

24 18 Physical Science: Physics*, chemistry*, geology, astronomy

SOCIAL STUDIES

30 30 Social Studies: History, political science, contemporary civilization, economics, sociology, geography, international relations, citizenship. European and American history and at least three other areas are required.

24 18 Geography

24 18 History: European* and American* history

24 18 Political Science and Economics

**SECONDARY SCHOOL TEACHERS:
REQUIREMENTS FOR K-12 CERTIFICATES**

Authorization to teach their specific subjects or fields in grades K-12 may be obtained by holders of secondary school teachers certificates if they present study in the following areas, in either separate or integrated courses:

- (a) child growth and development, pre-adolescent
- (b) elementary school curriculum and/or principles of elementary education—a general course
- (c) methods of teaching the subject or field in the elementary school.

**ELEMENTARY SCHOOL TEACHERS:
REQUIREMENTS FOR K-12 CERTIFICATES**

Holders of standard elementary teachers certificates shall be eligible for certification to teach a subject or field of study in both the elementary and secondary schools if they present the subject matter preparation required for additional fields on a secondary certificate.

*Required

ART

Effective November 1, 1967

AUTHORIZATION. This certificate is required for teaching art in elementary and secondary schools.

REQUIREMENTS

- I. A bachelor's degree based upon a four-year curriculum in an accredited college.
- II. Successful completion of *one* of the following:
 - A. A college curriculum approved by the New Jersey State Department of Education as the basis for issuing this certificate

OR

- B. A program of college studies including:

*general
background*

1. A minimum of thirty semester-hour credits in *general background* courses distributed in at least three of the following fields: English, social studies, science, fine arts, mathematics, and foreign languages. Six semester-hour credits in English and six in social studies will be required.
2. A minimum of fifteen semester-hour credits in *professional education* courses distributed over three or more of the following groups including at least one course in each starred area. These fifteen credits do not include student teaching.

*Methods of teaching art.

*Educational psychology. This group includes such courses as psychology of learning, human growth and development, adolescent psychology, educational measurements, and mental hygiene.

*professional
education*

Curriculum. This group includes such courses as principles of curriculum construction, the high school curriculum, a study of the curriculum in the specific field, and extracurricular activities.

Foundations of education. This group includes such courses as history of education, principles of education, philosophy of education, comparative education, and educational sociology.

Guidance. This group includes such courses as principles of guidance, counseling, vocational guidance, educational guidance, research in guidance, and student personnel problems.

3. A minimum of forty semester-hour credits in the *field of specialization*, distributed among the following areas and covering both the elementary and secondary fields:

Philosophy, principles, methods, and a study of the curriculum in fine arts.

*specialized
field*

Art history and art appreciation and design, including architecture, housing and community design, house furnishings or interior architecture and design.

Painting, sculpture, drawing, and composition.

Graphic arts, including lithography, etching, wood cuts, wood engraving, photography, silk screening, linoleum-block printing, and lettering.

Crafts, including plastics, woodwork, metalwork, jewelry, theatre, puppetry, fashion design and illustrations, ceramics, and textile weaving.

*student
teaching*

4. One hundred and fifty clock hours of *approved student teaching*. At least ninety clock hours must be devoted to responsible classroom teaching; sixty clock hours may be employed in observation and participation. This requirement is in addition to the fifteen credits in professional education.

SECONDARY SCHOOL TEACHERS: REQUIREMENTS FOR K-12 ART CERTIFICATES

Authorization to teach art in grades K-12 may be obtained by holders of secondary art teachers' certificates* if they present study in the following areas, in either separate or integrated courses:

- (a) child growth and development, pre-adolescent
- (b) elementary school curriculum and/or principles of elementary education—a general course
- (c) methods of teaching art in the elementary school

ELEMENTARY SCHOOL TEACHERS: REQUIREMENTS FOR K-12 ART CERTIFICATES

Authorization to teach art in grades K-12 may be obtained by holders of standard elementary teachers' certificates if they present eighteen semester-hour credits in art.

Information regarding the colleges in New Jersey offering approved curriculums leading to this certificate may be obtained from the Office of Teacher Education and Certification.

**For information regarding requirements for teaching art in grades seven through twelve only, see secondary teacher's certificate requirements, page 28.*

BUSINESS EDUCATION

Effective November 1, 1967

AUTHORIZATION. This certificate is required for teaching business education in secondary or vocational schools.

REQUIREMENTS

I. A bachelor's degree based upon a four-year curriculum in an accredited college.

II. Successful completion of *one* of the following:

A. A college curriculum approved by the New Jersey State Department of Education as the basis for issuing this certificate

OR

B. A program of college studies including:

*general
background*

1. A minimum of thirty semester-hour credits in *general background* courses distributed in at least three of the following fields: English, social studies, science, fine arts, mathematics, and foreign languages. Six semester-hour credits in English and six in social studies will be required.

2. Three hundred clock hours of related business experience approved by the college or the State Department of Education.

*professional
education*

3. A minimum of fifteen semester-hour credits in *professional education* courses distributed over three or more of the following groups including at least one course in methods of teaching the skill subjects to be taught and one in each starred area. These fifteen credits do not include student teaching.

* Methods of teaching. This group includes such courses as methods of teaching the skill subjects to be taught, visual aids in education, and individualizing instruction.

* Educational psychology. This group includes such courses as psychology of learning, human growth and development, adolescent psychology, educational measurements, and mental hygiene.

* A course dealing with the aims, scope, and desirable outcomes of business education.

Curriculum. This group includes such courses as principles of curriculum construction, the high school curriculum, a study of the curriculum in one specific field, and extracurricular activities.

Foundations of education. This group includes such courses as history of education, principles of education, philosophy of education, comparative education, and educational sociology.

Guidance. This group includes such courses as occupational trends and opportunities, principles of guidance, counseling, vocational guidance, educational guidance, research in guidance, and student personnel problems.

*student
teaching*

4. One hundred and fifty clock hours of *approved student teaching*. At least ninety clock hours must be devoted to responsible classroom teaching: sixty clock hours may be employed in observation and participation. This requirement is in addition to the fifteen credits in professional education.

5. Eighteen semester-hour credits in subjects basic to business and commerce chosen from the areas listed, including work as indicated in each of the starred fields: *economics, *business law, *business mathematics, *introduction to business or business organization and management, economic geography, finance, consumer education, marketing or merchandising.

*specialized
field*

6. Semester-hour credits as specified below in each of the following fields:

Bookkeeping and Accounting

Twelve (12) semester-hour credits in bookkeeping and accounting*, and methods of teaching bookkeeping and accounting*. At least eight (8) of the twelve (12) hours must be in bookkeeping and accounting.

Secretarial Studies

Twelve (12) semester-hour credits in shorthand*, typewriting*, methods of teaching secretarial studies*, and office practice. There must be a minimum of six (6) semester hours in shorthand, and four (4) semester hours in typewriting.

*physiology
and
hygiene*

7. In accordance with the provisions of New Jersey Statutes (RS 18: 13-4, 1903) applicants must take an examination in physiology and hygiene. In lieu of this examination the applicant may present college study in such areas as biology, personal health problems, community health, school health, family health, health counseling, nutrition, or health administration.

SECONDARY SCHOOL TEACHERS: REQUIREMENTS FOR K-12 CERTIFICATES

Authorization to teach subjects or fields in grades K-12 may be obtained by holders of secondary school teachers' certificates** if they present study in the following areas, in either separate or integrated courses:

- (a) child growth and development, pre-adolescent
- (b) elementary school curriculum and/or principles of elementary education—a general course
- (c) methods of teaching the subject or field in the elementary school.

ELEMENTARY SCHOOL TEACHERS: REQUIREMENTS FOR K-12 CERTIFICATES**

Holders of standard elementary teachers' certificates shall be eligible for certification to teach a subject or field of study in both the elementary and secondary schools if they present the subject matter preparation required for *additional* fields on a secondary certificate. See the secondary teachers certificate rule for these requirements.

**Required*

Information regarding the colleges in New Jersey offering approved curriculums leading to this certificate may be obtained from the Office of Teacher Education and Certification.

***For information regarding requirements for teaching bookkeeping and accounting, general business, secretarial studies, or typewriting in grades seven through twelve, see secondary teacher's certificate requirements, page 28.*

FOREIGN LANGUAGES

Effective November 1, 1967

AUTHORIZATION. This certificate is required for teaching foreign languages in elementary and secondary schools.

REQUIREMENTS

I. A bachelor's degree based upon a four-year curriculum in an accredited college.

II. Successful completion of *one* of the following:

A. A college curriculum approved by the New Jersey State Department of Education as the basis for issuing this certificate

OR

B. A program of college studies including:

*general
background*

1. A minimum of thirty semester-hour credits in *general background* courses distributed in at least three of the following fields: English, social studies, science, fine arts, mathematics, and foreign languages. Six semester-hour credits in English and six in social studies will be required.

2. A minimum of fifteen semester-hour credits in *professional education* including work in each starred area. These credits do not include student teaching.

*professional
education*

*a. *Teaching Foreign Languages.* Studies designed to provide understanding of the aims, methods, and curriculum in the foreign language program, including attention to teaching *both* the elementary and secondary levels.

*b. *The School Program.* Studies designed to provide understanding of the principles, methods of teaching, and the curriculum, as they apply to the total program of the school, and including treatment of *both* elementary and secondary levels.

*c. *Human Growth and Development.* Studies designed to develop an understanding of human development and learning, including *both* pre-adolescent and adolescent periods.

d. Foundations of Education. This group includes such courses as history of education, principles of education, philosophy of education, comparative education, and educational sociology.

e. Electives in professional education.

3. A minimum of twenty-four semester-hour credits in one foreign language, and eighteen semester-hour credits in each additional language to be taught, including for each language the following studies:

*specialized
field*

a. Civilization and culture of the language group, including emphasis on contemporary life.

b. Stories, poems, songs and games in the language, appropriate for elementary and secondary school children.

c. Linguistic analysis: (Applied, contrastive, descriptive, or structural linguistics, with attention to phonology, morphology, and syntax).

*student
teaching*

4. One hundred and fifty clock hours of *approved student teaching*, including experience at *both* elementary and secondary levels. At least ninety clock hours must be devoted to responsible classroom teaching; sixty clock hours may be employed in observation and participation. This requirement is in addition to the fifteen credits in professional education.

*physiology
and
hygiene*

5. In accordance with the provisions of New Jersey Statutes (RS 18: 13-4, 1903) applicants must take an examination in physiology and hygiene. In lieu of this examination the applicant may present college study in such areas as biology, personal health problems, community health, school health, family health, health counseling, nutrition, or health administration.

SECONDARY SCHOOL TEACHERS: REQUIREMENTS FOR K-12 FOREIGN LANGUAGE CERTIFICATES

Authorization to teach foreign languages in grades K-12 may be obtained by holders of secondary school foreign language teachers' certificates* if they present study in the following areas, in either separate or integrated courses:

1. Child growth and development, pre-adolescent
2. Elementary school curriculum and/or principles of elementary education — a general course
3. Methods of teaching foreign languages in the elementary school

ELEMENTARY SCHOOL TEACHERS: REQUIREMENTS FOR K-12 FOREIGN LANGUAGE CERTIFICATES

Authorization to teach foreign languages in grades K-12 may be obtained by holders of standard elementary teachers' certificates if they present eighteen semester-hour credits in the language to be taught.

Information regarding the colleges in New Jersey offering approved curriculums leading to this certification may be obtained from the Office of Teacher Education and Certification.

**For information regarding requirements for teaching foreign languages in grades seven through twelve only, see secondary teacher's certificate requirements, page 28.*

HEALTH EDUCATION

Effective November 1, 1967

AUTHORIZATION. This certificate is required for teaching health education in the elementary and secondary schools.

REQUIREMENTS

I. A bachelor's degree based upon a four-year curriculum in an accredited college.

II. Successful completion of *one* of the following:

A. A college curriculum approved by the New Jersey State Department of Education as the basis for issuing this certificate

OR

B. A program of college studies including:

*general
background*

1. A total of thirty semester-hour credits in *general background* courses distributed in at least three of the following fields: English, social studies, science, fine arts, mathematics, and foreign languages. Six semester-hour credits in English and six in social studies will be required.

2. A minimum of fifteen semester-hour credits in *professional education* courses distributed over three or more of the following groups including at least one course in each starred area. These fifteen credits do not include student teaching.

* Methods of teaching health education.

*professional
education*

* Educational psychology. This group includes such courses as psychology of learning, human growth and development, adolescent psychology, educational measurements, and mental hygiene.

Curriculum. This group includes such courses as principles of curriculum construction, the high school curriculum, a study of the curriculum in the specific field, and extracurricular activities.

Foundations of education. This group includes such courses as history of education, principles of education, philosophy of education, comparative education, and educational sociology.

Guidance. This group includes such courses as principles of guidance, counseling, vocational guidance, educational guidance, research in guidance, and student personnel problems.

3. A minimum of forty semester-hour credits in the *field of specialization* distributed among the following four areas, and covering both the elementary and secondary fields, with major emphasis on health education.

Bacteriology, biology, and chemistry

Psychology and sociology, including mental hygiene, adolescent psychology, sociology, and educational sociology

*specialized
field*

Health education, including anatomy, physiology, child growth and development, personal and community health, foods and nutrition, health aspects of home and family life, health counseling, safety and first aid, and organization, administration, and supervision of school health programs

Methods of teaching, including a study of the public school health education curriculum

*student
teaching*

4. One hundred and fifty clock hours of *approved student teaching*. At least ninety clock hours must be devoted to responsible classroom teaching; sixty clock hours may be employed in observation and participation. This requirement is in addition to the fifteen credits in professional education.

SECONDARY SCHOOL TEACHERS: REQUIREMENTS FOR K-12 HEALTH EDUCATION CERTIFICATES

Authorization to teach health education in grades K-12 may be obtained by holders of secondary health education teachers' certificates* if they present study in the following areas, in either separate or integrated courses:

- (a) child growth and development, pre-adolescent
- (b) elementary school curriculum and/or principles of elementary education—a general course
- (c) methods of teaching health in the elementary school

ELEMENTARY SCHOOL TEACHERS: REQUIREMENTS FOR K-12 HEALTH EDUCATION CERTIFICATES

Authorization to teach health education in grades K-12 may be obtained by holders of standard elementary teachers' certificates if they present eighteen semester-hour credits in health education.

Information regarding the colleges in New Jersey offering approved curriculums leading to this certificate may be obtained from the Office of Teacher Education and Certification.

**For information regarding requirements for teaching health education in grades seven through twelve only, see secondary teacher's certificate requirements, page 28.*

HOME ECONOMICS

Effective November 1, 1967

AUTHORIZATION. This certificate is required for teaching general and vocational home economics in elementary and secondary schools.

REQUIREMENTS

I. A bachelor's degree based upon a four-year curriculum in an accredited college.

II. A program of college courses including a minimum of thirty semester-hour credits in *general background* courses distributed in at least three of the following fields: English, social studies, science, fine arts and mathematics.

III. Successful completion of *one* of the following:

A. A college curriculum approved by the New Jersey State Department of Education as the basis for issuing this certificate

OR

B. A program of college studies including:

*professional
education*

1. A minimum of fifteen semester-hour credits in *professional education* including courses from the following fields. These fifteen credits do not include student teaching.

Principles and philosophy of vocational-technical education

Methods of teaching vocational-technical subjects

Curriculum construction in home economics

Educational psychology

Foundations of education

Guidance

*specialized
field*

2. A minimum of thirty semester-hour credits in *home economics* including courses from each of the following areas:

Foods and nutrition

Clothing and textiles

Family relationships and child development

Family economics and home management

Housing, home furnishings, and equipment

*student
teaching*

3. A minimum of one hundred and fifty clock hours of approved *student teaching*. At least ninety clock hours must be devoted to responsible classroom teaching; sixty clock hours may be employed in observation and participation. This requirement is in addition to the fifteen semester-hour credits of *professional education*.

SECONDARY SCHOOL TEACHERS: REQUIREMENTS FOR K-12 HOME ECONOMICS CERTIFICATES

Authorization to teach home economics in grades K-12 may be obtained by holders of secondary home economics teachers' certificates* if they present study in the following areas, in either separate or integrated courses:

- (a) child growth and development, pre-adolescent
- (b) elementary school curriculum and/or principles of elementary education—a general course
- (c) methods of teaching home economics in the elementary school

ELEMENTARY SCHOOL TEACHERS: REQUIREMENTS FOR K-12 HOME ECONOMICS CERTIFICATES

Authorization to teach home economics in grades K-12 may be obtained by holders of standard elementary teachers' certificates if they present thirty semester-hour credits in home economics, including study in the areas of foods and clothing.

Authorization to teach clothing in grades K-12 may be obtained by holders of standard elementary teachers' certificates if they present eighteen semester-hour credits in clothing.

Authorization to teach foods in grades K-12 may be obtained by holders of standard elementary teachers' certificates if they present eighteen semester-hour credits in foods.

Information regarding the colleges in New Jersey offering approved curriculums leading to this certificate may be obtained from the Office of Teacher Education and Certification.

**For information regarding requirements for the secondary home economics certificate see page 28.*

INDUSTRIAL ARTS

(Academic Background)

Effective November 1, 1967

AUTHORIZATION. This certificate is required for teaching industrial arts in elementary and secondary schools.

REQUIREMENTS

I. A bachelor's degree based upon a four-year curriculum in an accredited college.

II. Successful completion of *one* of the following:

A. A college curriculum approved by the New Jersey State Department of Education as the basis for issuing this certificate

OR

B. A program of college studies including:

*general
background*

1. A minimum of thirty semester-hour credits in *general background* courses distributed in at least three of the following fields: English, social studies, science, fine arts, mathematics, and foreign languages. Six semester-hour credits in English and six in social studies will be required.

2. Three hundred clock hours of work experience in occupations related to the industrial arts field approved by the State Department of Education.

*professional
education*

3. A minimum of fifteen semester-hour credits in *professional education courses* distributed over three or more of the following groups including at least one course in each starred area. These fifteen credits do not include student teaching.

* Methods of teaching in elementary and secondary schools.

* Educational psychology. This group includes such courses as psychology of learning, human growth and development, adolescent psychology, educational measurement, and mental hygiene.

Curriculum. This group includes such courses as principles of curriculum construction, the high school curriculum, a study of the curriculum in the specific field, and extracurricular activities.

Foundations of education. This group includes such courses as history of education, principles of education, philosophy of education, comparative education, and educational sociology.

Guidance. This group includes such courses as principles of guidance, counseling, vocational guidance, educational guidance, research in guidance, and student personnel problems.

*student
teaching*

4. One hundred and fifty clock hours of *approved student teaching*. At least ninety clock hours must be devoted to responsible classroom teaching; sixty clock hours may be employed in observation and participation. This requirement is in addition to the fifteen credits in professional education.

5. *Industrial Arts*. A minimum of forty semester-hour credits in the field of specialization distributed among at least five of the following categories:

Drafting and Design — Typically to include: design, sketching, mechanical machine, architectural design and drafting, product design and technical illustration.

Woodworking — Typically to include: design and construction of wood products, finishing, building construction and industrial wood processing.

Electricity and Electronics — Typically to include: basic electricity, electronic circuitry and communications, solid-state conductors and industrial electronics and instrumentation.

*specialized
field*

Power Mechanics — Typically to include: internal and external combustion engines, drive and transmission devices, auto mechanics, jet and aircraft engines, and turbines.

Graphic Arts — Typically to include: intaglio, relief printing, lithography, silk screening, bookbinding and photography.

Metalworking — Typically to include: foundry, machining, sheet metal, forging, welding and heat treating.

Other Areas — Typically to include: fluid power, plastics, ceramics, textiles, and hand crafts.

SECONDARY SCHOOL TEACHERS: REQUIREMENTS FOR K-12 INDUSTRIAL ARTS CERTIFICATES

Authorization to teach industrial arts in grades K-12 may be obtained by holders of secondary industrial arts teachers' certificates* if they present study in the following areas, in either separate or integrated courses:

- (a) child growth and development, pre-adolescent
- (b) elementary school curriculum and/or principles of elementary education—a general course
- (c) methods of teaching industrial arts in the elementary school

Information regarding the colleges in New Jersey offering approved curriculums leading to this certificate may be obtained from the Office of Teacher Education and Certification.

**For information regarding requirements to teach industrial arts in grades seven through twelve only, see secondary teacher's certificate requirements, page 28.*

INDUSTRIAL ARTS

(Experience Background)

Effective November 1, 1967

AUTHORIZATION. This certificate is required for teaching industrial arts in elementary and secondary schools.

REQUIREMENTS

I. High school graduation or equivalent attainment and a minimum of eighteen semester-hour credits in *general background* courses distributed in at least three of the following fields: English, social studies, science, fine arts, mathematics, and foreign languages. Six semester-hour credits in English and six in social studies will be required.

II. Four years of approved industrial, trade, or technical experience.

III. Successful completion of *one* of the following:

A. A college curriculum approved by the New Jersey State Department of Education as the basis for issuing this certificate

OR

B. A program of college studies including:

*professional
education*

A minimum of fifteen semester-hour credits in *professional education* in courses distributed over three or more of the following groups, including at least one course in each starred area. These fifteen credits do not include student teaching.

* Methods of teaching industrial arts in elementary and secondary schools.

* Educational psychology. This group includes such courses as psychology of learning, human growth and development, adolescent psychology, educational measurements, and mental hygiene.

Curriculum. This group includes such courses as principles of curriculum construction, the high school curriculum, a study of the curriculum in industrial arts, and extracurricular activities.

Foundations of education. This group includes such courses as history of education, principles of education, philosophy of education, comparative education, and educational sociology.

Guidance. This group includes such courses as principles of guidance, counseling, vocational guidance, educational guidance, research in guidance, and student personnel problems.

IV. One hundred and fifty clock hours of *approved student teaching*. At least ninety clock hours must be devoted to responsible classroom teaching; sixty clock hours may be employed in observation and participation. This requirement is in addition to the fifteen credits in professional education.

*student
teaching*

*specialized
field*

Industrial Arts. A minimum of forty semester-hour credits in the field of specialization distributed among at least five of the following categories:

Drafting and Design — Typically to include: design, sketching, mechanical machine, architectural design and drafting, product design and technical illustration.

Woodworking — Typically to include: design and construction of wood products, finishing, building construction and industrial wood processing.

Electricity and Electronics — Typically to include: basic electricity, electronic circuitry and communications, solid-state conductors and industrial electronics and instrumentation.

Power Mechanics — Typically to include: internal and external combustion engines, drive and transmission devices, auto mechanics, jet and aircraft engines, and turbines.

Graphic Arts — Typically to include: intaglio, relief printing, lithography, silk screening, bookbinding and photography.

Metalworking — Typically to include: foundry, machining, sheet metal, forging, welding and heat treating.

Other Areas — Typically to include: fluid power, plastics, ceramics, textiles, and hand crafts.

Information regarding the colleges in New Jersey offering approved curriculums leading to this certificate may be obtained from the Office of Teacher Education and Certification.

MUSIC

Effective November 1, 1967

AUTHORIZATION. This certificate is required for teaching music in elementary and secondary schools.

REQUIREMENTS

I. A bachelor's degree based upon a four-year curriculum in an accredited college.

II. Successful completion of *one* of the following:

A. A college curriculum approved by the New Jersey State Department of Education as the basis for issuing this certificate

OR

B. A program of college studies including:

*general
background*

1. A minimum of thirty semester-hour credits in *general background* courses distributed in at least three of the following fields: English, social studies, science, fine arts, mathematics, and foreign languages. Six semester-hour credits in English and six in social studies will be required.

*professional
education*

2. A minimum of fifteen semester-hour credits in *professional education* in courses distributed over three or more of the following groups, including at least one course in each starred area. These fifteen credits do not include student teaching.

* Methods of teaching music in elementary and secondary schools.

* Educational psychology. This group includes such courses as psychology of learning, human growth and development, adolescent psychology, educational measurements, and mental hygiene.

Curriculum. This group includes such courses as principles of curriculum construction, the high school curriculum, a study of the curriculum in the field of specialization, and extracurricular activities.

Foundations of education. This group includes such courses as history of education, principles of education, philosophy of education, comparative education, and educational sociology.

Guidance. This group includes such courses as principles of guidance, counseling, vocational guidance, educational guidance, research in guidance, and student personnel problems.

*student
teaching*

3. One hundred and fifty clock hours of *approved student teaching*. At least ninety clock hours must be devoted to responsible classroom teaching; sixty clock hours may be employed in observation and participation. This requirement is in addition to the fifteen credits in professional education.

4. A minimum of forty semester-hour credits in the *field of specialization* distributed among the following areas and covering both the elementary and secondary fields:

*specialized
field*

Music reading and dictation; music history and music literature.

Music theory, including harmony and counterpoint, keyboard harmony, elementary composition, and form and analysis.

Instrumentation, orchestration, conducting, and score reading for chorus, orchestra, and/or band.

Applied Music:

Piano. Ability to play four-part choral at sight and to be able to play accompaniments to school songs and assembly singing.

Voice. Ability to sing in tune with good quality, diction and ease of production.

Voice. Ability and training to sing artistically folk and art songs suitable for high school classes.

Each candidate should possess superior ability in one medium—voice, piano, or other instrument.

In lieu of the above semester-hour requirements, any institution may submit to the State Board of Examiners a statement of the individual's ability to satisfy the above applied music requirements.

SECONDARY SCHOOL TEACHERS: REQUIREMENTS FOR K-12 MUSIC CERTIFICATES

Authorization to teach music in grades K-12 may be obtained by holders of secondary music teachers' certificates* if they present study in the following areas, in either separate or integrated courses:

- (a) child growth and development, pre-adolescent
- (b) elementary school curriculum and/or principles of elementary education—a general course
- (c) methods of teaching music in the elementary school

ELEMENTARY SCHOOL TEACHERS: REQUIREMENTS FOR K-12 MUSIC CERTIFICATES

Authorization to teach music in grades K-12 may be obtained by holders of standard elementary teachers' certificates if they present thirty semester-hour credits in vocal and instrumental music.

Authorization to teach vocal music in grades K-12 may be obtained by holders of standard elementary teachers' certificates if they present eighteen semester-hour credits in vocal music.

Authorization to teach instrumental music in grades K-12 may be obtained by holders of standard elementary teachers' certificates if they present eighteen semester-hour credits in instrumental music.

Information regarding the colleges in New Jersey offering approved curriculums leading to this certificate may be obtained from the Office of Teacher Education and Certification.

**For information regarding requirements to teach music in grades seven through twelve only, see secondary teacher's certificate rule, page 29.*

PHYSICAL EDUCATION

Effective November 1, 1967

AUTHORIZATION. This certificate is required for teaching physical education in elementary and secondary schools. (Health education shall be included in this authorization if the curriculum contains at least eighteen semester-hour credits in this field.)

REQUIREMENTS

I. A bachelor's degree based upon a four-year curriculum in an accredited college.

II. Successful completion of *one* of the following:

A. A college curriculum approved by the New Jersey State Department of Education as the basis for issuing this certificate

OR

B. A program of college studies including:

*general
background*

1. A minimum of thirty semester-hour credits in *general background* courses distributed in at least three of the following fields: English, social studies, science, fine arts, mathematics, and foreign languages. Six semester-hour credits in English and six in social studies are required.

*professional
education*

2. A minimum of fifteen semester-hour credits in *professional education* courses distributed over three or more of the following groups, including at least one course in each starred area. These fifteen credits do not include student teaching.

* Methods of teaching physical education in elementary and secondary schools.

* Educational psychology. This group includes such courses as psychology of learning, human growth and development, adolescent psychology, educational measurements, and mental hygiene.

Curriculum. This group includes such courses as principles of curriculum construction, the high school curriculum, a study of the curriculum in the field of specialization, and extracurricular activities.

Foundations of education. This group includes such courses as history of education, principles of education, philosophy of education, comparative education, and educational sociology.

Guidance. This group includes such courses as principles of guidance, counseling, vocational guidance, educational guidance, research in guidance, and student personnel problems.

*student
teaching*

3. One hundred and fifty clock hours of *approved student teaching*. At least ninety clock hours must be devoted to responsible classroom teaching; sixty clock hours may be employed in observation and participation. This requirement is in addition to the fifteen credits in professional education.

4. A minimum of forty semester-hour credits in the *field of specialization*, distributed among the following areas and covering both the elementary and secondary fields:

*specialized
field*

Anatomy, physiology, kinesiology.

Coaching, development of personal skills, nature and function of play.

History, principles, and organization and administration of physical education.

Materials and methods in physical education for the elementary grades and materials and methods in physical education for the high school.

Health education including personal and community hygiene, first aid, and safety.

SECONDARY SCHOOL TEACHERS: REQUIREMENTS FOR K-12 PHYSICAL EDUCATION CERTIFICATES

Authorization to teach physical education in grades K-12 may be obtained by holders of secondary school physical education teachers' certificates* if they present study in the following areas, in either separate or integrated courses:

- (a) child growth and development, pre-adolescent
- (b) elementary school curriculum and/or principles of elementary education—a general course
- (c) methods of teaching physical education in the elementary school

ELEMENTARY SCHOOL TEACHERS: REQUIREMENTS FOR K-12 PHYSICAL EDUCATION CERTIFICATES

Authorization to teach physical education in grades K-12 may be obtained by holders of standard elementary teachers' certificates if they present eighteen semester-hour credits in physical education.

Information regarding the colleges in New Jersey offering approved curriculums leading to this certificate may be obtained from the Office of Teacher Education and Certification.

**For information regarding requirements to teach physical education in grades seven through twelve only, see secondary teacher's certificate requirements, page 29.*

RECREATION

(Permissive)

Effective November 1, 1967

AUTHORIZATION. This certificate authorizes the holder to teach recreation in the elementary and secondary schools and may be secured by recreation directors employed by boards of education.

REQUIREMENTS

I. A bachelor's degree based upon a four-year curriculum in an accredited college.

II. Successful completion of *one* of the following:

A. A college curriculum approved by the New Jersey State Department of Education as the basis for issuing this certificate

OR

B. A program of college studies including:

*general
background*

1. A total of thirty semester-hour credits in *general background* courses distributed in at least three of the following fields: English, social studies, science, fine arts, mathematics, and foreign languages. Six semester-hour credits in English and six in social studies will be required.

*professional
education*

2. A minimum of fifteen semester-hour credits in *professional education* courses distributed over three or more of the following groups including at least one course in each starred area. These fifteen credits do not include student teaching.

* Methods of teaching recreation in elementary and secondary schools.

* Educational psychology. This group includes such courses as psychology of learning, human growth and development, adolescent psychology, educational measurements, and mental hygiene.

Curriculum. This group includes such courses as principles of curriculum construction, the high school curriculum, a study of the curriculum in the specific field, and extracurricular activities.

Foundations of education. This group includes such courses as history of education, principles of education, philosophy of education, comparative education, and educational sociology.

Guidance. This group includes such courses as principles of guidance, counseling, vocational guidance, educational guidance, research in guidance, and student personnel problems.

*student
teaching*

3. One hundred and fifty clock hours of *approved student teaching*. At least ninety clock hours must be devoted to responsible teaching and/or supervision of recreational activities; sixty clock hours may be employed in observation and participation. This requirement is in addition to the fifteen credits in professional education.

4. A minimum of forty semester-hour credits in the *field of specialization* distributed among the following areas and covering both the elementary and secondary fields:

*specialized
field*

Community recreation, including history, principles and philosophy, organization and administration of recreation.

Outdoor education, including school camping, camp leadership, training and organization, camp crafts and administration.

First aid and safety.

Recreation education, including study of recreation areas and facilities, programming of recreation, playground management, publicity, club work, group work, crafts, games and dancing, swimming, music, and dramatics.

Related science and social studies including health education, biological science, social problems, adult education, counseling and guidance.

ENDORSEMENT IN RECREATION

(Permissive)

REQUIREMENTS.

- I. A teacher's certificate.
- II. A minimum of eighteen semester-hour credits including work in each of the following areas:

Community recreation, including history, principles and philosophy, organization and administration of recreation.

First aid and safety.

Outdoor education, including school camping, camp leadership, training and organization, camp crafts, and administration.

Recreation education, including study of recreation areas and facilities, programming of recreation, playground management, publicity, club work, group work, crafts, games and dancing, swimming, music, and dramatics.

SCHOOL LIBRARIAN

Effective November 1, 1967

AUTHORIZATION. This certificate is required for service as a school librarian and for instruction in the use of the school library in elementary and/or secondary schools and junior colleges.

REQUIREMENTS

I. A bachelor's degree based upon a four-year curriculum in an accredited college.

II. Successful completion of *one* of the following:

A. A college curriculum approved by the New Jersey State Department of Education as the basis for issuing this certificate

OR

B. A program of college studies including:

*general
background*

1. A minimum of thirty semester-hour credits in *general background* courses distributed in at least three of the following fields: English, social studies, science, fine arts, mathematics, and foreign languages. Six semester-hour credits in English and six in social studies will be required.
2. A minimum of nine semester-hour credits in *professional education* courses distributed over two or more of the following five groups. These nine credits do not include student teaching.

Guidance. This group includes such courses as principles of guidance, counseling, vocational guidance, educational guidance, research in guidance, and student personnel problems.

*professional
education*

Methods of teaching. This group includes such courses as methods of teaching in elementary and secondary schools, visual aids in education, and individualizing instruction.

Educational psychology. This group includes such courses as psychology of learning, human growth and development, adolescent psychology, educational measurements, and mental hygiene.

Curriculum. This group includes such courses as principles of curriculum construction, the high school curriculum, a study of the curriculum in the field of specialization, and extracurricular activities.

*student
teaching*

3. One hundred and fifty clock hours of appropriate practice work in a library or one hundred and fifty clock hours of approved *student teaching* or a combination of both. This requirement is in addition to the nine credits in professional education.
4. A degree in library science from an accredited institution, or equivalent preparation, including thirty semester-hour graduate or undergraduate credits in *library science* related to public school service, in such areas as:

Cataloguing

*specialized
field*

Classification

Reference work

Bibliography

Selection of instructional materials, including book selection for children

Library organization and administration

Information regarding the colleges in New Jersey offering approved curriculums leading to this certificate may be obtained from the Office of Teacher Education and Certification.