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Design for and staffing of a minimum program for secondary education in Iowa: grades 9-12*

State of Iowa
DEPARTMENT OF PUBLIC INSTRUCTION
J. C. Wright, Superintendent
Des Moines 19
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DEPARTMENT OF PUBLIC INSTRUCTION

Circular No. 100b

Design for and Staffing of a Minimum Program

for Secondary Education in Iowa: Grades 9-12*

(One of a Series of Circulars Separate from Approval Standards for Schools but Illustrative of the "Dimensions" Within Which Such Standards Should Be Applied. See Also Bulletin No. 100 and Circular No. 100a.)

^{*}Suggestions for school systems with junior high schools are to appear separately. It is the judgment of the staff of the Department that the sugstions included herein will be consistent with those made elsewhere for nior high schools.

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^{*}Assistant Superintendent for Instruction Arthur Carpenter, in his capacity as Director of Curriculum, supervised the work of the Committee.

FOREWORD

Each Iowa high-school pupil is entitled to attend a school where the educational program - handled by teachers who are well-qualified in their fields - includes academic subjects which all pupils should take and also offers academic subjects which pupils should be counseled to take if they have the ability to do so. Other courses which are essential to the development of competence for careers requiring little or no post-high-school education should be offered to the extent that the resources of the district permit and to the extent that employment demands of local or nearby communities show the need for such courses.

Recently, the writer of this FOREWORD, had the pleasure of hearing Dr. James Bryant Conant give some predictions as to the future course of secondary education in our country. Dr. Conant who is President-Emeritus of Harvard University is completing an intensive study and visitation of comprehensive high schools throughout the United States.

It was gratifying to learn that Dr. Conant's recommendations fit very closely with those as listed in our Bulletin No. 100, How Good Is Your Local School System? and as further developed in this Circular No. 100b. He has also expressed himself publicly to this effect several times. For example, in addressing the convention of the National Association of Secondary-School Principals in February, 1958, he said:

"Four years of English and four years of history or related social studies will be required of all the pupils in a satisfactory high school, according to my views. Two years of mathematics will likewise be required, but, at the end of the eighth grade, the counselors will, on the basis of earlier achievement and suitable tests, guide not more than half of the boys and girls in the ninth grade into algebra, the others into general mathematics or commercial mathematics. All the students will take a general science course in the ninth grade or biology in that grade or the tenth. All will be urged to elect at least one year of art or music, and, depending on the state laws, all will take physical education for a definite period of time."

Elsewhere in the same address, he stressed the importance of giving attention in the high-school educational program to the vocational goals of all pupils - both those whose careers will require additional formal study in college or other institutions and those who will go directly into jobs after high school.

It is our hope that this circular will serve as a guide for local school officials to follow in determining what educational program shall be officially adopted by the local school board for its high-school pupils. The members of the staff of your State Department of Public Instruction stand ready to consult with you in this connection at any time that you wish to request their services.

J. C. WRIGHT
State Superintendent of Public Instruction

I. Introduction

What the high school ought to teach is a question which will never fully be answered so long as a changing society places new demands upon its schools. Yet, as of any given year or period of years, the school board, working with its superintendent and professional staff and with the citizens of its community, must determine the educational program it will adopt and for which it will budget its available resources.

This circular presents an elaboration of the suggested senior-high-school educational program proposed in Bulletin No. 100, Section E. The suggestions in Bulletin No. 100 were based, to a large degree, on recommendations originally contained in a publication of the Department of Public Instruction published in 1947 under the title, A Proposed Design for Secondary Education in Iowa.

This bulletin, now out of print, but undoubtedly still on file at most schools and college libraries in the state, was based on a careful analysis of the development of secondary education in the United States and in Iowa. Iowa teachers and administrators - throughout a full school year - studied thirty-five issues in secondary education and expressed their opinions about them. Majority opinion agreed that the secondary school has two major functions: "(1) to provide general educational experiences which point primarily toward the development of informed and responsible persons in a free society, and (2) to provide specialized educational opportunities for the development of individual interests and talents."

Thus, Bulletin No. 100 and this present circular represent simply additional steps toward already well-formulated goals for the secondary-school educational program in Iowa school systems. Now that school districts reorganization is becoming accomplished, the chances for the implementation of a truly adequate educational program at the high-school level are becoming better.

Recent events have highlighted the extreme importance of making it possible for every high-school pupil to have the opportunity to study in whatever significant subject-matter areas his abilities and interests warrant. All areas in the proposed "Iowa Design" need to be "up-dated" and kept in proper perspective. Furthermore, mathematics, science and foreign languages which have had diminished or at least scant attention in many Iowa high schools must be offered for at least a minimum number of units if our dream of the comprehensive high school which serves "all types of youth"* is to be realized.

Under Iowa law the local school board adopts the educational program (or, in the words of the law, Section 280.17, "course of study") to be offered subject to the approval of the Superintendent of Public Instruction whose action is, in turn, subject to the sanction of the State Board of Public Instruction.

^{*}The quoted words are from an address by James Bryant Conant delivered at the Forty-Second Annual Convention of the National Association of Secondary-School Principals. Indianapolis, Indiana, February, 1958. (See Conant, James B. "The Public High School and the National Interest," Bulletin of the National Association of Secondary-School Principals, XLII (April, 1958), 343-56.

Standard 9 of Circular No. 100a reads as follows:

"The school board shall require its superintendent and professional staff to describe the total elementary— and secondary—school educational program which has been officially adopted by the board. This description of the educational program and all subsequent revisions thereof shall be filed with the Department of Public Instruction. It shall indicate the subjects, courses or areas of instruction offered and required of all pupils; the subjects, courses or areas of instruction offered but elective on the part of the pupils; the scope and sequences of offerings; and the subjects, courses or areas of instruction offered in alternate years. Schools offering subjects in alternate years in grades nine through twelve shall submit to the Department of Public Instruction a projected program of offerings covering a four—year sequence."

This Circular No. 100b has been prepared as a suggested guide for superintendents to follow in filing the description of their secondary-school educational programs with the Department of Public Instruction.

II. Recommended Minimum Educational Program

NOTE 1: For a definition of an offering, see Standard 26 of Circular No. 100a, Tentative Standards for the Approval of School Districts.

A. Communications

English, 4 units offered (English I, II, III, IV); 3 units required (English I, II, and III or IV)

Additional course offerings might include: Speech and Drama, Debate, Journalism, Grammar, Developmental Reading, Remedial Reading, Creative Writing, etc.

B. Mathematics

4 units offered; 2 units required (See Item VI, Some Guide Lines for Program Planning.)

Course offerings might include:
General Mathematics, Algebra I, Advanced Algebra, Plane Geometry,
Solid Geometry, Trigonometry, Business Arithmetic, Consumer Mathematics, Advanced Arithmetic, Calculus, Analytical Geometry, etc.

C. Languages Including Modern Foreign Languages

2 units offered; a minimum of 4 semesters in any one language

D. Science

3 units offered (General Science, Biology, and Physics or Chemistry); 2 units required

Additional course offerings might include:

Advanced Chemistry, Advanced Biology, Botany, Zoology, Earth Science,
Physiology, Astronomy, Practical Science, etc.

E. Social Studies

4 units offered; 3 units required including one unit in American History, 1/2 unit in Civics of the State and Nation, and 1/2 unit in Social Problems and Economics

Additional course offerings might include:
American Government, World History, Geography, Sociology, American Problems, World Problems, etc.

- F. Practical Arts and Vocational Studies
 - 1. Agriculture (See Note 2.)
 - a. General
 - b. Vocational
 - 2. Homemaking
 - 2 units offered
 - a. General
 - b. Vocational
 - 3. Business Education (See Note 2.)
 - 2 units offered including typewriting
 - Additional course offerings might include:
 Bookkeeping, Business Law, Shorthand, Advanced Typewriting, Personal Typewriting, General Business, Office Practice, Secretarial Practice, Business Arithmetic, Retailing, Salesmanship, Business English, Distributive Education, etc.
 - 4. Industrial Arts (See Note 2.)
 - 2 units offered
 - Additional course offerings might include: General Shop, Drawing, Electricity, Auto Mechanics, Blueprint Reading, Metal Work, Woodwork, Sheet Metal, etc.
 - 5. Distributive Education (See Note 2.)
 - 6. Trade and Industrial Education (See Note 2.)

NOTE 2: Each secondary school should offer at least 2 units in agriculture, or distributive education, or trade and industrial education, or in lieu of said 2 units in at least one of the three aforesaid areas, 3 units each in industrial arts and business education.

- G. Fine Arts
 - 1. Art

1 unit offered

2. Music

2 units offered

- a. Vocal
- b. Instrumental
- H. Physical Education, Health, and Safety
 - 1. Physical Education

1 unit required. This includes at least 50 minutes per week, 1/8 unit per semester than includes at least 50 minutes per week, 1/8

2. Driver Education and Safety

1/2 unit offered

3. Health Education

III. Special Services

Each high school should be able to have personnel available who are prepared in the following areas. This personnel might be part of the local school staff, or might furnish services to the local school from the county superintendent's office.

- A. Counseling and Guidance
- B. Testing Services
- C. Librarian
- D. Special Education
- E. Health (nursing)
- F. Audio-Visual
- G. Secondary Consultant or Supervisor of Instruction
- IV. Personnel Needed to Implement the Educational Program
 - A. General Suggestions

Each school to offer a broad educational program should have personnel prepared in each instructional area. The number of staff members will vary with the size of the school and the combination of subject areas taught. Combinations of offerings taught by each staff member should not exceed two areas; i.e., physics and mathematics; English and social studies.

The Department of Public Instruction regards it as essential that each teacher shall have completed 30 semester hours of preparation in any teaching field which constitutes a major portion of his assignment.

In order to form an efficient pupil-teacher ratio, certain schools may find it necessary to combine instructional areas. However, as already indicated, the Department discourages the combination of more than two areas under a single teacher.

B. Recommended Positions

- 1. Superintendent
- 2. Principal
- 3. English
- 4. Mathematics
- 5. Science
- 6. Social Studies
- 7. Languages
- 8. Industrial Arts
- 9. Homemaking
- 10. Business Education
- ll. Agriculture
- 12. Art
- 13. Music
- 14. Physical Education, Health, and Safety
- 15. Counseling and Guidance (at least a teacher-counselor)
- 16. Librarian (at least a teacher-librarian)

V. An Acceptable Educational Program

Grade Nine

Required
English I
Algebra or General Mathematics
General Science or Biology
Physical Education

Elective
Foreign Language I
Social Studies I
Agriculture I
Industrial Arts I
Homemaking I
Art I
Music

Grade Ten

Required
English II
World History (Social Studies II)
Biology (if not taken in minth grade)
Physical Education

Elective
Plane Geometry
Language I or II
Industrial Arts II
Homemaking II
Art I
Agriculture II
Driver Education
Music

Grade Eleven

Required
English III or IV
American History (Social Studies III)
Physical Education

Elective Homemaking III Agriculture III or IV Industrial Arts III Typewriting I Shorthand I Language II Advanced Algebra Physics Chemistry Driver Education Music English III or IV Personal Tpewriting Advanced Arithmetic Bookkeeping

Grade Twelve

Required
Social Studies IV
Mathematics (2nd year)
Physical Education
English III or IV (unless the three required units have been met)

Elective Trigonometry - Solid Geometry Typewriting II Stenography - Shorthand II Office Practice Bookkeeping Agriculture III or IV English III or IV Homemaking III Advanced Arithmetic Physics Chemistry Music Personal Typewriting Industrial Arts Advanced Algebra

Recommendations for Alternating Subjects

	Subject	Grades	Even Years	Odd Years
1.	Physics	11-12		X
2.	Chemistry	11-12	X	
3.	English III	11-12		X
-	English IV	11-12	X	
	Language I	9-10		X
6.	Language II	9-10	X	
	Agriculture III	11-12		X
	Agriculture IV	11-12	X	
9.	Advanced Algebra	11-12		X
10.	Trigonometry - Solid Geometry	11-12	X	
11.	Homemaking III	11-12		X
12.	Industrial Arts III	11-12		X
13.	Advanced Arithmetic	11-12	X	
	Art	9-10		X
15.	Personal Typewriting	11-12	X	
	Bookkeeping	11-12		X
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VI. Some Guide Lines for Program Planning

A. General Principles

- 1. Staff members should be assigned in fields of their major preparation.
- 2. Each staff member should be given one free period daily for conference, class preparation, and general planning.
- 3. Subjects to be alternated should follow an even-odd year alternation, These alternations should follow the suggestions in this circular.
- 4. Every pupil should be counseled in his choice of subjects in fields to meet his interests, talents, and desires. The counselor should have available for constructive counseling the results of standard tests, the grades earned in school, the anecdotal comments of the faculty, and the life objectives of each pupil.

B. Notes on Required Areas

- 1. The English minimum requirements should be met by taking English I, II, and III or IV. The total program can be enriched by other subjects in the communications area.
- 2. One way for a pupil to meet the mathematics requirement would be by taking Algebra I and Plane Geometry. The pupil with low mathematical ability might meet the requirement by taking general mathematics in his freshman or sophomore year and advanced arithmetic, or business arithmetic, or consumer mathematics in his junior or senior year. It is recognized that certain pupils who are accelerated in mathematics, may be offered Algebra I in the eighth grade.
- 3. The science requirement can be met by taking two years selected from general science, biology, and physics or chemistry. For pupils with low science aptitudes, general science, biology, or practical science would meet the requirement. Pupils who have achieved competence in science before entering ninth grade might well omit general science in high school.
- 4. In the social studies area, see II, Recommended Minimum Educational Program, E., of this Circular.
- 5. Physical education and health exclusive of athletics, with modified instruction for the handicapped, is required to the extent of eight semesters. The Department of Public Instruction recognizes that this time allotment is extremely limited and urges schools to make every effort to provide daily instruction.

C. Notes on Additional Areas

- 1. Every pupil should be able to take at least two years of a foreign language if this is necessary to meet his educational goals.
- 2. Art should be available to those pupils whose interests and aptitudes are in this field. If Art I is not made available in the ninth or tenth grades, it might be alternated in the eleventh and twelfth grades.
- 3. Every pupil should have opportunities for participation in music education.

