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# COLLEGE ENTRANCE REQUIREMENTS

COMPILED BY

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# COLLEGE ENTRANCE REQUIREMENTS.

## Chapter I.

### AMOUNT AND FLEXIBILITY OF ENTRANCE REQUIREMENTS.

#### THE ADJUSTMENT OF HIGH SCHOOL AND COLLEGE.

The adjustment, or articulation, of the parts of a system is recognized as essential to the efficiency of that system. In fact, we can not properly speak of a system until the parts are in adjustment. The educational system is no exception. Unless the American high school and the American college are adjusted, we have no real educational system.

The adjustment of parts, each of which has a separate legitimate function, calls for a relationship that cripples none of the parts. But the relationship commonly existing between high school and college cripples both. The problem is a broad one, but the solution depends to a considerable extent upon the amount and flexibility of college entrance requirements.

#### RECOMMENDATIONS OF THE CARNEGIE FOUNDATION.

The Carnegie Foundation for the Advancement of Teaching has approached this problem from the point of view of both the college and the school, particularly urging upon the college that low and uncertain entrance requirements constitute one of the chief causes of college inefficiency and at the same time demoralize the high school and retard the development of four-year high schools.

The Foundation shows that the prescription of a rigid traditional course of study, as the only preparation for college, results in a large increase in the number of students admitted to college with entrance conditions, thereby crippling the college. Moreover, it also shows that strong colleges presuppose strong high schools, and that one of the conditions for the strengthening of the high school is the granting to it of greater freedom in adapting its instruction to the actual needs of boys and girls in attendance. Many communities demand that the instruction, while continuing to provide a sound education, shall be related more specifically to the industrial, commercial, social, and civic life of the community. The demand for the adaptation of education to changing conditions is not new and never has been

long denied, but the need is now acute, because of the rapidity of recent social changes. Such adaptations will, it is claimed, strengthen secondary education, because the boys and girls will feel that their work is worth while, whether they go to college or not, and communities will be more generous in their support, making it possible to secure better schools with better teachers. Consequently the Foundation recommends:

First, greater insistence upon the completion of a four-year high-school course; and,

Second, greater freedom for the high school in selecting and organizing the subjects of instruction.

#### RECOMMENDATIONS OF THE COMMITTEE ON THE ARTICULATION OF HIGH SCHOOL AND COLLEGE.

The same general conclusions are stated also by the Committee on the Articulation of High School and College. This committee approached the problem primarily from the standpoint of the high school, although it included members concerned also with college education. Their report attempts to state the distinctive function of the high school as a part of the educational system. It offers a definition of a well-planned high-school course and maintains that the satisfactory completion of such a course should be accepted as "preparation for college." This report was adopted by the Secondary Department of the National Education Association in July, 1911, and has been strongly indorsed by those engaged in secondary education. Its recommendations have already begun to find adoption by colleges and State boards of education. The report is given in full in the appendix of this bulletin.

#### CHANGES IN ENTRANCE REQUIREMENTS.

Recent changes in entrance requirements are almost wholly in the direction of greater insistence upon the completion of a four-year high-school course and greater flexibility in entrance requirements, as recommended both by the Carnegie Foundation and by the Committee on the Articulation of High School and College. How far changes have progressed in these directions may be seen by comparing the tabulation in this bulletin with a tabulation given in Chapter XI of the Annual Report of the Commissioner of Education for 1896-97.

#### AMOUNT OF WORK REQUIRED FOR COLLEGE ADMISSION.

##### DEFINITION OF THE UNIT.

The discussion of the amount of work required for admission to college is greatly simplified by the adoption of a "unit" in terms of which all high-school work may be measured. Within the last few

years nearly all colleges have come to express their requirements in units. There still remains some variation in definitions of the unit, but the following definition is given in the fourth annual report of the Carnegie Foundation as the result of a conference between the officers of the Foundation and representatives of the National Conference Committee on Standards of Colleges and Secondary Schools:

**"A unit represents a year's study in any subject in a secondary school, constituting approximately a quarter of a full year's work."**

This statement is designed to afford a standard of measurement for the work done in secondary schools. It takes the four-year high-school course as a basis and assumes that the length of the school year is from 36 to 40 weeks, that a period is from 40 to 60 minutes in length, and that the study is pursued for four or five periods a week; but, under ordinary circumstances, a satisfactory year's work in any subject can not be accomplished in less than one hundred and twenty 60-minute hours or their equivalent. Schools organized on a different basis can nevertheless estimate their work in terms of this unit.

Two hours of manual training or laboratory work are generally assumed to be equivalent to one hour of classroom work.

NUMBER OF UNITS REQUIRED FOR ADMISSION.

The following table gives the number of units required for admission by the colleges represented in this bulletin:

Units required.	Colleges of liberal arts.	Colleges of engineering.	Colleges of agriculture.
14.....	39	27	9
14½.....	31	5	1
15.....	116	50	21
15½.....	5		
16.....	12	3	
17½.....	1		
Total.....	204	85	31

From the foregoing definition of a unit a four-year high-school course can not exceed 16 units, since the time element is included in the definition. This limitation, however, is not intended to apply to students of exceptional ability. No mechanical rule may properly prevent such students from obtaining credit for four years of work when accomplished in three or three and one-half years. When a college requires more than 16 units for admission, either the college abandons the purpose of articulating with the four-year high school or else the term "unit" is used in a different sense from that here employed. The only college requiring more than 16 units is Bryn Mawr. How far this college abandons the purpose of articulating with the public high school may be seen from the fact that the

catalog issued in May, 1911, shows that in the freshman class of that year, containing 116 women, 97 received part or all of their preparation in special college preparatory schools or by private tuition, and of the remaining 19 all but 8 were prepared by the Girls' High School of Philadelphia.

The Committee on the Articulation of High School and College favored 15 instead of 16 units, with the proviso "that physical training and chorus singing should not be counted toward the 15 units." For their statement of reasons, see page 99. The rules of the North Central Association of Colleges and Secondary Schools provide that a standard college must require at least 15 units.

Fourteen units is now generally regarded as the minimum number that may be required by a standard college.

#### STUDENTS PREMATURELY ADMITTED.

In this bulletin the number of units "required for admission" refers to the number that entitles an entrant to full freshman standing; but many colleges make a practice of admitting students who have not completed the "required" number of units. The presence in freshman classes of any considerable number of students thus prematurely admitted leads to modification of the instruction, resulting in lower standards for the whole institution, and works serious injustice to their classmates who completed the high-school course. The injury is not lessened by the fact that the students poorly prepared are conditioned. On the contrary, it is increased, because these, the weaker students, must take time from their regular work to devote to removing entrance conditions. Consequently, either the conditioned student is seriously overworked or the instruction is modified and the rest of the freshman class is underworked. If, as often happens, the removal of entrance conditions is made absurdly easy, the college virtually abandons the standard it professes. In view of these facts, the true measure of the standard of the college ought to be the number of units that must be completed *before entering college* rather than the number that entitles the entrant to admission "without condition." It is worthy of note that some of the stronger colleges are discontinuing the practice of admitting students who present less than 14 or 15 units.

#### NEED FOR FLEXIBILITY OF ENTRANCE REQUIREMENTS.

Even if the admission of students who have not completed 14 or 15 units of high-school work is discontinued, there is still another cause giving rise to entrance conditions. If the requirements are not flexible, many a student who has completed a high-school course, carefully planned from the standpoint of secondary education, finds that he has omitted subjects required by the particular college he seeks to enter, and that he has taken other subjects for which no

credit is given. Consequently, he is entered as a conditioned student.

It has been pointed out that requiring the student to make up conditions after he enters does not make it easier to start him off in college work. The difficulty of placing him in suitable classes is not lessened. The practical fact is that the college necessarily adjusts its organization to the students that it admits, whether they are classified as freshmen in full standing or as conditioned students; the entrance conditions merely act as a handicap to those who are assumed to be unprepared. The more satisfactory method would seem to be that of framing entrance requirements so broad as to give full standing to those whom the college proposes to admit, retaining only such essential requirements as the college authorities are willing to enforce.

Greater flexibility would not only eliminate the necessity of conditioning students, but would also do away with the complaint of the high school, namely, that the present rigidity of college entrance requirements exercises a restrictive influence upon the adaptation of secondary education to the needs of the communities supporting the high schools.

#### METHODS OF SECURING FLEXIBILITY.

Flexibility is secured by reducing the number of "prescribed subjects" and increasing the number of subjects for which credit will be given.

*Prescribed subjects.*—The old method was to prescribe definite subjects with a definite amount of each.

The next method was to prescribe a definite amount of work in each of the main groups—English, mathematics, foreign language, science, and history—but to permit choice of the particular language, science, or history to be offered.

A recent method is to prescribe still fewer subjects, and to allow choice of the group or groups from which majors and minors are to be presented.

A number of colleges are leaving the selection of subjects entirely to approved schools.

*Accepted subjects.*—Formerly all the work was prescribed; there was no flexibility, and consequently no necessity for assigning credit for any additional subjects, but now nearly all of the colleges permit several units to be chosen freely from a list of accepted subjects. In many colleges the list of accepted subjects is still so meager as not to include certain subjects that other colleges prescribe. An examination of this bulletin will show many such cases. Even if the high school were to regard its chief function as that of "preparation for college," it would still be embarrassed by the contradictions in the requirements of the various colleges. Frequently subjects are



omitted that specialists in secondary education and the public at large believe to be of prime importance in the education of all boys and girls. On the other hand, an examination of the tables in this bulletin shows that many colleges have included in their lists all subjects for which any considerable demand has been expressed.

*Free margin.*—A more recent method is to allow as part of the required number of units a free margin that may be made up of any subjects that an approved school counts toward graduation. This method of granting a free margin has certain advantages over the attempt to make a list of accepted subjects. (For a statement of the advantages of this method, see appendix, p. 100, sec. 5.) The following institutions whose requirements are given in this bulletin now grant a free margin of the number of units indicated:

## INSTITUTIONS GRANTING A FREE MARGIN OF UNITS.

## TWENTY-EIGHT COLLEGES OF LIBERAL ARTS.

		Units.
Ariz.	Arizona, University of.....	5½
Cal.	Leland Stanford Junior University (second method).....	15
Ill.	Chicago, University of.....	5
	Northwestern University.....	2
Ind.	De Pauw University.....	4
	Earlham College.....	4
	Franklin College.....	4
	Hanover College.....	4
	Indiana University.....	5
	Wabash College.....	5
Mass.	Clark College.....	15
Mich.	Kalamazoo College.....	1
	Michigan, University of (second method).....	3
Minn.	Carleton College.....	} 7 A. B. 4 B. S.
	Hamline University.....	15
	Macalester College.....	15
	St. Olaf College.....	10
N. Y.	Alfred University.....	3
	Elmira College.....	1
N. C.	Wake Forest College.....	1½
N. Dak.	Fargo College.....	3
Ohio.	Ohio University.....	15
	Ohio Wesleyan University.....	} 2 A. B. 1 B. S.
Oreg.	Reed College.....	15
	Willamette University.....	4
Tenn.	Fisk University.....	3½
Wis.	Ripon College.....	4
	Wisconsin, University of.....	1

## TEN COLLEGES OF ENGINEERING.

Ariz.	Arizona, University of.....	6 or 6
Ill.	Northwestern University.....	2
Ind.	Notre Dame University.....	1
Me.	Maine, University of.....	4
Mich.	Michigan, University of.....	2

	Units.
N. H. New Hampshire College of Agriculture and Mechanic Arts.	3
N. Mex. New Mexico College of Agriculture and Mechanic Arts....	6
N. Dak. North Dakota Agricultural College.....	5
Pá. Lafayette College.....	1½
Wis. Wisconsin, University of.....	1

## SEVEN COLLEGES OF AGRICULTURE.

Ariz. Arizona, University of.....	7½
Ga. Georgia, University of.....	4½
N. H. New Hampshire College of Agriculture and Mechanic Arts.	3
N. Mex. New Mexico College of Agriculture and Mechanic Arts...	6
N. Y. Syracuse University.....	5½
N. Dak. North Dakota Agricultural College.....	5
Wis. Wisconsin, University of.....	1

## DISTRIBUTION OF PRESCRIBED UNITS.

There is wide variation not only in the number of units prescribed, but also in the way in which these prescribed units are distributed. The adjustment of high school and college is considerably affected by this distribution. There is general agreement, both in theory and in practice, that the normal high-school course should include at least three units of English, one of natural science, and one of history or other social science. These five units, together with the two or two and one-half units of mathematics almost uniformly included, constitute one-half of the total number of units required for admission, and the prescription of these units has comparatively little effect in reducing flexibility except when the college specifies some particular science or epoch of history.

In 1899 the Committee of Ten on college entrance requirements recommended that the following ten units should be included in high-school course and college entrance requirements: "Four units in foreign language (no language accepted in less than two units), two units in mathematics, two in English, one in history, and one in science."

It is interesting to note in the following quotation from that report of 1899 that the foreign-language requirement was even then a disputed point:

Few colleges, few committees, few boards of education will dissent from the proposition that every pupil should have at least one year of history, one year of some science taught by laboratory methods, and two years of English, including composition and literature; some will argue that there are those who can not master geometry, and yet, if one has the scholarship which will warrant the expenditure of four years in college, he will have the ability to assimilate algebra and geometry to the extent of two full years of work. The question of foreign languages is a mooted one, and yet most intelligent people will agree that one foreign language—and that, too, pursued four years; or two, each followed two years—is valuable, if for no other purpose than to give the pupil an enlarged and more appreciative idea of our incomparable English. These constants are submitted, therefore, as important for every secondary school.

The introduction and development of new subjects has led to the reduction and frequent omission of the foreign languages from courses

laid out for large groups of high-school students, and there is need for college courses to which students who have pursued no foreign language may be admitted.

However, much of the present difficulty in adjusting the two institutions would not have arisen if none of the colleges had prescribed a greater number of units in foreign language than those recommended by the committee in 1899.

DIAGRAMS GIVING PRESCRIBED AND ACCEPTED UNITS AND INDICATING DISTRIBUTION AND FLEXIBILITY.

In the following diagrams the black portion opposite each subject indicates the number of prescribed units, the entire strip opposite each subject indicates the maximum number of units that will be accepted, and the white portion indicates the flexibility.

The entrance requirements of the following colleges of liberal arts are illustrated by Diagram 1:

- Cal.....Leland Stanford Junior University.
- Mass.....Clark College.
- Minn.....Hamline University.  
Macalester College.
- Ohio.....Ohio University.
- Oreg.....Reed College.

English.....	Area of flexibility 15 x 6=90  (Subject to recommendation of an approved high school.)	15
Mathematics.....		15
Foreign language.....		15
Natural science.....		15
Social science.....		15
Vocational subjects.....		15

DIAGRAM 1.—Prescribed units, none. Flexibility, maximum.

The University of Chicago prescribes no subject other than English, as shown in Diagram 2. In addition to the English, a major of 3 units and a minor of 2 units are required.

English.....	3								10
Mathematics.....									10
Foreign language.....									12
Natural science.....									10
Social science.....									10
Vocational subjects...									5

DIAGRAM 2.—Prescribed units, 3. Area of flexibility, 54.

The University of Minnesota prescribes no subject other than English and mathematics, as shown in Diagram 3. In addition to the English, a major of 3 units and a minor of 2 units are required.

In case 4 units of one foreign language are presented, only 3 units of English are required. On account of the broad interpretation given by this university to the term social science, it is possible for the graduate of a well-organized commercial course to obtain credit for  $7\frac{1}{2}$  units of social science and commercial subjects.

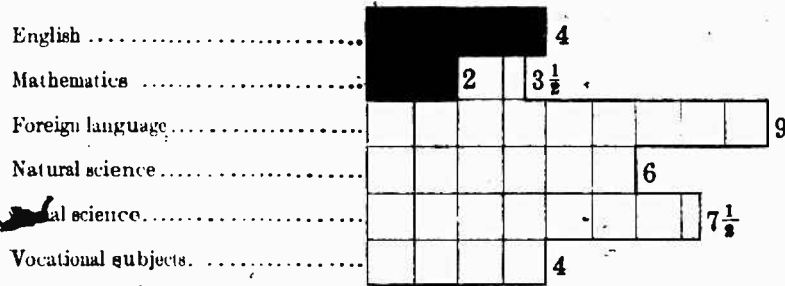


DIAGRAM 3.—Proscribed units, 6. Area of flexibility, 24.

Diagrams 4-8 show the flexibility in the entrance requirements for the A. B. course in five of the leading State universities. It may be noted from these diagrams that in these institutions flexibility is found in every subject.

The University of Wisconsin prescribes only 6 units, and the area of flexibility is  $25\frac{1}{2}$ , as shown in Diagram 4.

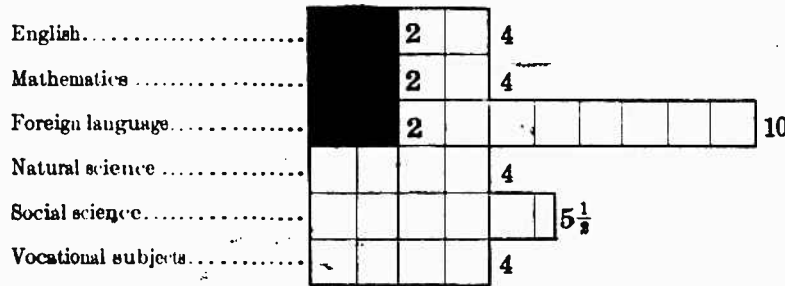


DIAGRAM 4.

The University of Missouri prescribes only 7 units, and the area of flexibility is 31, as shown in Diagram 5.

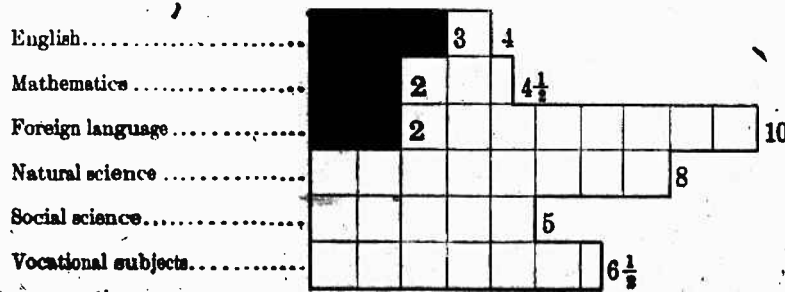


DIAGRAM 5.

The University of Michigan prescribes 8 units, and the area of flexibility is 20, as shown in Diagram 6. The university also requires two majors of 3 units each and a minor of 2 units.

English .....				3	4						
Mathematics.....			2			4					
Foreign language.....			2								9
Natural science.....		1							5		
Social science.....								3			
Vocational subjects .....								3			

DIAGRAM 6.

A second method, far more flexible than the first, is provided by the University of Michigan for fully recommended graduates of specially approved schools. In it no work is prescribed, and 12 units may be selected from the list of accepted subjects and the other 3 units may consist of any work counted by the school for graduation.

The State University of Iowa prescribes  $8\frac{1}{2}$  units, and the area of flexibility is  $21\frac{1}{2}$ , as shown in Diagram 7. The entrance requirements are determined by the State board.

English .....				3	4						
Mathematics.....			$2\frac{1}{2}$			4					
Foreign language.....			2								$8\frac{1}{2}$
Natural science.....									$4\frac{1}{2}$		
Social science.....		1						4			
Vocational subjects .....											5

DIAGRAM 7.

The University of Nebraska prescribes 9 units, and the area of flexibility is  $22\frac{1}{2}$ , as shown in Diagram 8.

English .....				2			4				
Mathematics.....				2		$3\frac{1}{3}$					
Foreign language.....						3					7
Natural science.....			1								7
Social science.....			1				4				
Vocational subjects .....											6

DIAGRAM 8.

The two following diagrams, 9 and 10, are in marked contrast with the preceding ones. There is no flexibility in the amount of work to be offered in any group, and there is but little choice of subjects within groups.

Johns Hopkins University and Georgetown University prescribe 7 units of foreign language and 3 units of mathematics and accept only  $\frac{1}{2}$  unit of natural science, as shown in Diagram 9.

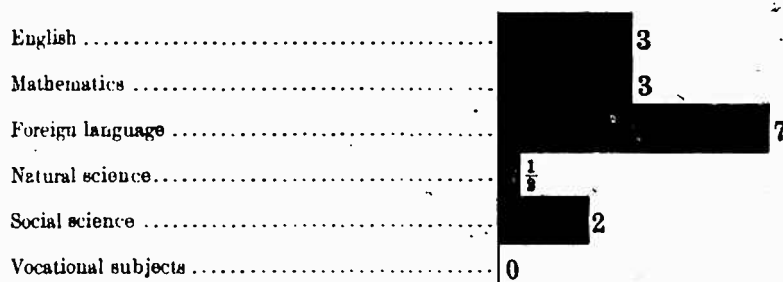


DIAGRAM 9.

Hamilton College and Rutgers College prescribe 7 units of foreign language and accept no natural science, as shown in Diagram 10.

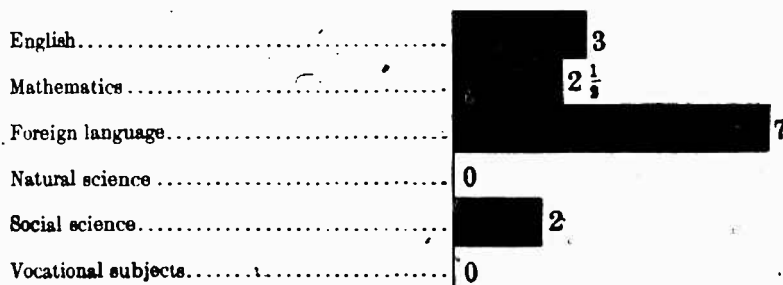


DIAGRAM 10.

The average number of units prescribed for admission to the A. B. course by the 203 colleges of liberal arts whose requirements for that course are tabulated in this bulletin is 10.7, and the average area of flexibility is 13.3, as shown in Diagram 11.

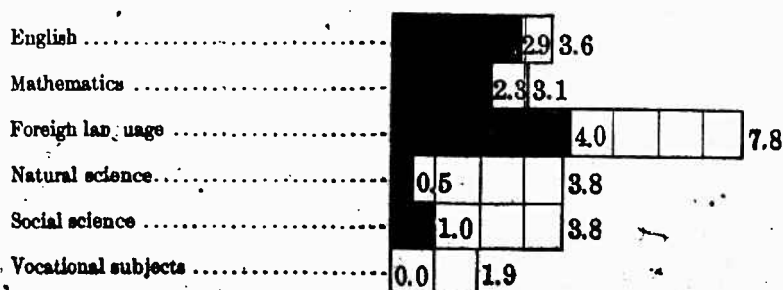


DIAGRAM 11.

The average number of units prescribed by the 85 colleges of engineering whose requirements are tabulated in this bulletin is 10.1, and the average area of flexibility is 15.4, as shown in Diagram 12.

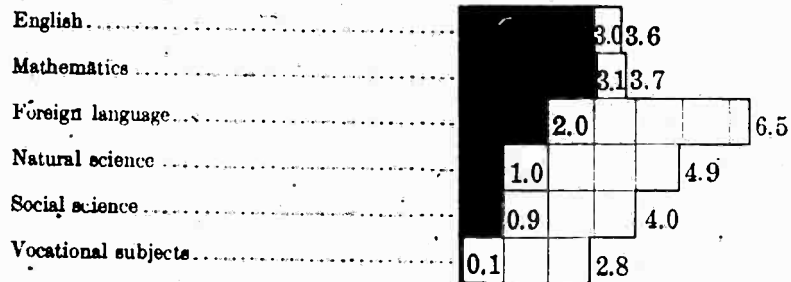


DIAGRAM 12.

The average number of units prescribed by the 31 colleges of agriculture whose requirements are tabulated in this bulletin is 8.1, and the average area of flexibility is 22.2, as shown in Diagram 13.

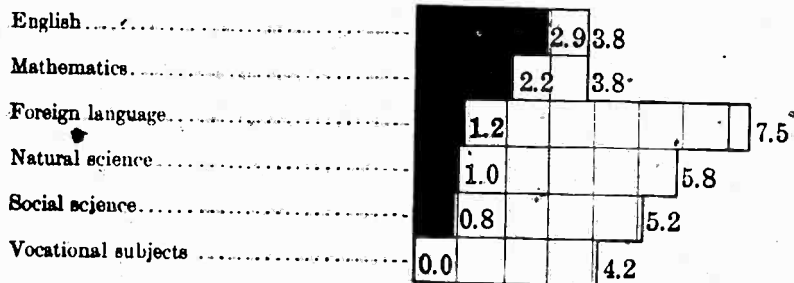


DIAGRAM 13.

The Committee on the Articulation of High School and College recommended three plans: A, B, and C, as given on page 104. All three plans called for the following:

- (1) Fifteen units, including a free margin of 4 units,
- (2) Two majors of 3 units each and a minor of 2 units,
- (3) English, 3 units; natural science, 1 unit; and social science, 1 unit.

Plan A prescribes 9 units and gives an area of flexibility of 33, as shown in Diagram 14.

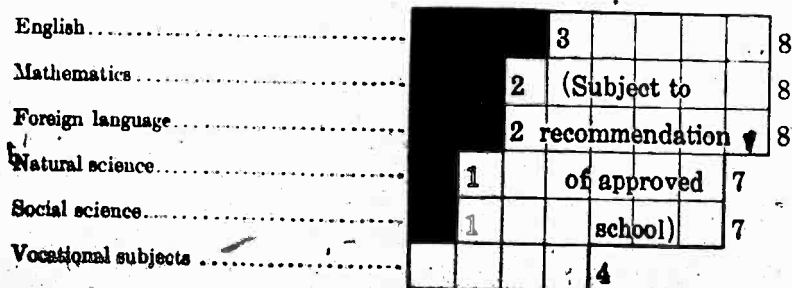


Diagram 14.

Plan B provides for cases in which it seems advisable to omit mathematics, as shown in Diagram 15.

English.....	3					8
Mathematics.....	0	(Subject to				
Foreign language.....	2	recommendation				8
Natural science.....	2	of approved school)				8
Social science.....	2					8
Vocational subjects.....					4	

DIAGRAM 15.

Plan C provides for cases in which it seems advisable to omit foreign language, as shown in Diagram 16.

English.....	3					8
Mathematics.....	2	(Subject to				
Foreign language.....	0	recommendation				
Natural science.....	2	of approved				8
Social science.....	2	school)				8
Vocational subjects.....					4	

DIAGRAM 16.

CONTRADICTIONS IN ENTRANCE REQUIREMENTS.

There are instances in which certain subjects are deemed so indispensable by some colleges of liberal arts that they prescribe them, while they are deemed of such little value by other colleges of liberal arts that they give them no credit. Such contradictions as these burden the high school, provincialize college student bodies, and discredit fine discriminations between subjects.

Table 1 shows the following contradictions in requirements for entrance to the A. B. course, some colleges prescribing a subject, while others will not accept it:

Contradictions in entrance requirements to A. B. course.

Subject.....	Colleges prescribing it.	Colleges not accepting it.
Fourth unit of English.....	7	114
More than two units of mathematics.....	141	4
More than two and one-half units of mathematics.....	32	19
More than three units of mathematics.....	1	57
Fifth unit of foreign language.....	71	1

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*Contradictions in entrance requirements to A. B. course—Continued.*

Subject.	Colleges prescribing it.	Colleges not accepting it.
Sixth unit of foreign language.....	55	4
Seventh unit of foreign language.....	21	49
Eighth unit of foreign language.....	1	106
Tenth unit of foreign language.....	1	186
First unit of natural science.....	91	8
Second unit of natural science.....	13	22
Second unit of history.....	27	8
Drawing.....	1	69

#### ABOLITION OF ENTRANCE "WITH CONDITIONS."

With flexible entrance requirements it has been found possible to require the full "15 units" and to admit no students with entrance conditions. The University of Chicago now admits no such students. The University of Minnesota has a comprehensive list of accepted subjects and admits no conditioned students to the colleges of liberal arts and engineering. Reed College makes no prescriptions whatever concerning the subjects to be offered for admission, and its catalog for 1911-12 states:

The college has far greater interest in the grade of work a student does in the subjects of his choice than in the particular subjects he happens to choose. Although there is no evidence sufficient to prove that a so-called college preparatory course is the only one that qualifies a student for college work, there is abundant evidence of close correlation between good work in school and good work in college, as there is also between success in studies and success in life.

#### MEANING OF CATALOG STATEMENTS.

Do the requirements as published by the colleges indicate actual practice in admitting students, or are they merely suggestive of subjects preferred? There is much confusion on this point. Some colleges rigidly enforce their printed statements. Others give large discretionary power to some administrative officer, freely accepting subjects not mentioned in the catalog. A few catalogs state that substitutes will be considered, but generally no such statement is made, and the impression is conveyed that substitutes are not accepted. While secondary education is undergoing rapid change, it may be difficult for the college to make an exact statement of the subjects it will accept and those it will prescribe, and even when requirements are carefully formulated, exceptions may occasionally be unavoidable. But it is desirable that those administering high-school education should be able to find in the printed catalog a statement as broad as the actual practice of the college. Since entrance requirements to-day exercise such a restrictive influence upon secondary education, it seems reasonable that the college should be expected to use greater care in the statement of its requirements.

## Chapter II.

### COLLEGES OF LIBERAL ARTS.

This chapter contains a tabulation and analysis of the entrance requirements of 204 colleges of liberal arts, of which all but one confer the A. B. degree.

Preceding the tables a statement is made of important variations in the requirements in English, mathematics, foreign language, science, and history.

Table 1 is a summary showing the distribution of 203 colleges of liberal arts according to the number of units that they prescribe in each subject for admission to the A. B. course and also according to the number of units that they accept in each subject.

Table 2, and the supplementary notes following it, give the entrance requirements of each college.

The attempt has been made to include in this chapter the more important colleges of liberal arts, and only such colleges. The new plan of Harvard College is given on page 59, but the requirements have not been tabulated because the committee on admission at Harvard found it impracticable at present to state the requirements in units. A few other colleges that might properly have been included doubtless have been overlooked.

Of the colleges in this chapter, 138 are coeducational, including therein Brown University and Tufts College, which have separate departments for men and women but the same entrance requirements for both.

There are 45 colleges for men exclusively, including Columbia College and Adelbert College; and 20 colleges exclusively for women, including Barnard College and the College for Women of Western Reserve University.

#### DEGREES CONFERRED.

The following degrees are conferred by the colleges in this chapter: A. B. by 203 colleges, B. S. by 104, Ph. B. by 22, B. L. by 4, Litt. B. by 3, B. S. in Chem. by 2, B. Chem. by 1, LL. B. by 1, L. H. B. by 1.

Ninety-five colleges confer only one degree, 94 conferring A. B. only, and 1 conferring B. S. only.

One hundred and nine colleges confer two or more degrees: Seventy-six confer A. B. and B. S. only; 18 confer A. B., Ph. B., and B. S.; 4 confer A. B. and Ph. B.; 4 confer A. B., B. L., and B. S.; and 7 confer various other combinations.

In practically every case the same number of units is required for courses leading to the various degrees. A number of the colleges granting different degrees make no difference in the entrance requirements, and others make very little difference in the work required in college.

#### TOTAL UNITS REQUIRED.

The average number of units required by the colleges in this chapter is 14.8.

In the following colleges, however, the number of units required depends upon the subjects offered:

At Princeton University history receives only half as much credit as an equal amount of other subjects. Consequently, the requirement is raised from 15 to 15½ units if 1 unit of history is offered, and to 16 units if 2 units of history are offered.

At Yale University and Boston University the requirement is increased one unit in case the student offers in addition to Latin both German and French.

At Dickinson College the requirement is 14½ instead of 14 when advanced mathematics is offered instead of extra language or history, while at Williams College the requirement is raised when advanced mathematics is not offered.

At Dartmouth College two years of drawing is given only one year's credit.

At Boston University there are several variations, according to the electives offered.

At Union College the requirement is raised from 14 to 15 units if Greek is offered.

#### COLLEGES PRESCRIBING NO SUBJECTS.

Ten colleges do not prescribe any particular subject in case the applicant is a graduate of a fully approved high school: Leland Stanford Junior University (second method), Cal.; Grinnell College (second method), Iowa; Clark College, Mass.; University of Michigan (second method); Hope College, Mich.; Hamline University and Macalester College, Minn.; Ohio University; Reed College, Oreg.; and Whitman College, Wash.

Of these, Grinnell College, Hope College, and Whitman College publish a list of subjects to which selection must be confined, and the University of Michigan requires that 12 of the 15 units shall be chosen from such a list. The other six colleges do not confine the selection to any list.

#### ENGLISH.

All colleges that prescribe any subject whatever prescribe English, and it is the only subject prescribed by the University of Chicago and by Leland Stanford Junior University (first method).

Only seven colleges prescribe more than three units of English, viz: University of Idaho; Notre Dame University, Ill.; University of Minnesota; Carleton College, Minn.; Gustavus Adolphus College, Minn.; University of Montana; and University of Washington (for B. S. only).

On the other hand, there are 114 colleges that give no credit for work in English in addition to the three prescribed units.

#### MATHEMATICS.

Every college that prescribes any subject other than English prescribes mathematics.

Only 19 colleges prescribe different amounts of mathematics for different courses.

In this bulletin, and in nearly all college catalogs, the following values are assigned to the various prescribed mathematical subjects:

(a) Elementary algebra	1 unit.
(b) Plane geometry	1 unit.
(c) Intermediate algebra	$\frac{1}{2}$ unit.
(d) Solid geometry	$\frac{1}{2}$ unit.
(e) Trigonometry	$\frac{1}{2}$ unit.
(f) Advanced algebra	$\frac{1}{2}$ unit.

Exceptions: Bucknell University evaluates (d) at  $\frac{1}{2}$  instead of  $\frac{1}{2}$ . Central University of Iowa and Ripon College evaluate (b) and (d) combined at 1 instead of  $1\frac{1}{2}$ . Eleven colleges evaluate (a) and (c) combined, together with such reviews as they desire, at 2 instead of  $1\frac{1}{2}$ , but (a) and (c) combined are uniformly evaluated as  $1\frac{1}{2}$  in this bulletin, and the fact that the college has a different evaluation is indicated in Table 2 by a note.

There is practical uniformity in the combination of subjects required under 2,  $2\frac{1}{2}$ , 3,  $3\frac{1}{2}$ , and 4 units, respectively:

2 units denote (a) and (b).

Exceptions: Central University of Iowa and Ripon College require (a) and count (b) and (d) combined as 1.

$2\frac{1}{2}$  units denote (a), (b), and (c).

Exception: Howard University B. S. (second method) requires (a), (b), and (d).

3 units denote (a), (b), (c), and (d).

Exceptions: Alfred University B. S. requires (a), (b), (d), and (e). Johns Hopkins University A. B. requires (a), (b), (c), and (e). West Virginia University B. S. allows a choice between (d) and (e).

$3\frac{1}{2}$  units denote (a), (b), (c), (d), and (e).

4 units denote (a), (b), (c), (d), (e), and (f).

Trigonometry is prescribed for the A. B. course only by Manhattan College and Johns Hopkins University; for the B. S. course only by Notre Dame University, New York University (section 3), Kenyon

College, Lafayette College, and Ursinus College; for the B. S. in Chem. by Syracuse University; and for B. Chem. by Cornell.

Advanced algebra is prescribed by Kenyon College for the B. S. and by Cornell University for the B. Chem., but it is not prescribed by any college for admission to the A. B. course.

## FOREIGN LANGUAGE.

The largest variation in prescribed units occurs in foreign language, as may be seen in Table 1. Here also lies serious difficulty in the adjustment of school and college. The present tendency is to reduce the amount of foreign language, both in the high-school course and in college entrance requirements, and to permit choice between ancient and modern language.

On account of the need for high-school courses planned with not more than two or three units of one foreign language, and also for the information of students who are now completing such a course, a list of colleges of liberal arts that will admit such students is given below.

From this list we find that a student who can offer no Greek or modern language and only three units of Latin can meet the foreign language requirement of 105 colleges of liberal arts and may become a candidate for the A. B. degree in 82 of these colleges.

Similarly, a student who can offer no Latin and only three units of German can meet the foreign language requirement of 110 colleges of liberal arts and may become a candidate for the A. B. degree in 73 of these colleges.

Moreover, there are 22 colleges of liberal arts to which a student may be admitted without any language other than English, and he may become a candidate for the A. B. degree in 18 of these colleges.

*Number of colleges of liberal arts whose foreign language requirement may be met by the student who offers only one foreign language in amount indicated.*

Language.	Number of colleges admitting.	Number of colleges admitting to A. B. course.
Three units of—		
Latin .....	105	82
Greek .....	89	71
German .....	110	73
French .....	105	68
Spanish .....	68	50
Two units of—		
Latin .....	77	55
Greek .....	68	50
German .....	85	52
French .....	82	49
Spanish .....	56	39
No foreign language .....	22	18

## LIST OF 114 COLLEGES NOT REQUIRING MORE THAN 3 UNITS OF FOREIGN LANGUAGE.

## FOREIGN LANGUAGE NOT REQUIRED.

*For the A. B. course.*

Cal. Leland Stanford Junior University.  
 Ill. University of Chicago.  
 Iowa. Grinnell College (2d method).  
 Mass. Clark College.  
 Mich. University of Michigan (2d method).  
 Hope College.  
 Minn. University of Minnesota.  
 Gustavus Adolphus College.  
 Hamline College.  
 Macalester College.  
 St. Olaf College.  
 Ohio. Ohio University.  
 Oreg. Reed College.  
 S. Dak. University of South Dakota.  
 Utah. University of Utah.  
 Va. Richmond College.  
 Washington and Lee University.  
 Wash. Whitman College.

*For the B. S. or other indicated course only.*

Ill. University of Illinois (school of science, except for chem. eng.).  
 James Millikin University.  
 N. Y. Barnard College.  
 Columbia College.

## ONE OR TWO UNITS REQUIRED.

(Lat. 2, or 1 of Gk., Ger., Fr., or Sp.)

La. Louisiana State University.

## TWO UNITS REQUIRED.

(Two of one foreign language or of two combined.)

Nev. State University of Nevada.  
 N. Dak. Fargo College.

Iowa. Cornell College.  
 Des Moines College.  
 Drake University.  
 Ky. State University of Kentucky.

(Two of one language: Lat., Gk., Ger., Fr., Sp., or Scan.)

N. Dak. University of North Dakota.

Iowa. Coe College.

(Two of one language: Lat., Gk., Ger., Fr., or Sp.)

Ariz. University of Arizona.  
 Cal. Occidental College.  
 University of Southern California.  
 D. C. George Washington University.  
 Ind. Earlham College.  
 Franklin College.  
 Iowa. State University of Iowa.  
 Mich. University of Michigan (1st method).  
 Olivet College.  
 Mo. University of Missouri.  
 Mont. University of Montana.  
 Okla. University of Oklahoma.  
 Oreg. University of Oregon.  
 Clatsop Community College.  
 Pa. Pennsylvania State College.  
 Wis. Lawrence College.  
 Wyo. University of Wyoming.

Ky. Central University of Kentucky.  
 Georgetown College.  
 N. Y. Alfred University.  
 Pa. Grove City College (Ph. B.)  
 Wash. University of Washington (mathematical and science courses).

(Two of one language: Lat., Gk., Ger., or Fr.)

Cal. Pomona College.  
 Iowa. Morningside College.  
 Mich. Albion College.  
 Alma College.  
 Hillsdale College.  
 Kalamazoo College.  
 Wis. Beloit College.  
 Carroll College.  
 Ripon College.

Iowa. Penn College.  
 Me. Bowdoin College.  
 Mass. Tufts College.  
 Minn. Carleton College.

## LIST OF 114 COLLEGES NOT REQUIRING MORE THAN 3 UNITS OF FOREIGN LANGUAGE—Continued.

## TWO UNITS REQUIRED—Continued.

(Two of one language: Lat., Ger., Fr., or Sp.)

Idaho. University of Idaho.  
La. Tulane University of Louisiana.  
W. Va. West Virginia University.

(Two of one language: Lat., Gk., or Ger.)

Iowa. Parsons College.  
S. Dak. Huron College.

(Two of one language: Lat., Ger., or Fr.)

Wis. University of Wisconsin. Ind. Purdue University.  
N. Y. St. Lawrence University.  
Vt. Middlebury College.

(Two of one language: Lat. or Ger.)

S. Dak. Yankton College.

(Two of one language: Ger. or Fr.)

Conn. Wesleyan University.  
Me. Bates College.  
Colby College.  
N.-H. Dartmouth College.  
N. Y. Union College.  
Pa. Grove City College.  
Lafayette College.  
Va. Randolph-Macon College.

(Latin 2.)

Md. Goucher College.  
Minn. Carleton College.  
Wash. State College of Washington.  
W. Va. West Virginia University.

## TWO OR THREE UNITS REQUIRED.

(Lat. 3, or 2 of Gk., Ger., Fr., or Sp.)

Tex. Southwestern University.

## TWO OR FOUR UNITS REQUIRED.

(Lat. 4, or Ger. 2, or Fr. 2.)

Ala. University of Alabama.  
Pa. Lehigh University.

## THREE UNITS REQUIRED.

(Three of one foreign language or of two combined.)

Ind. Wabash College. Fla. John B. Stetson University.  
Tex. Baylor University. Iowa. Des Moines College (Ph. B. only).

(To include 2 of one language: Lat., Gk., Ger., Fr., or Sp.)

Ill. University of Illinois (school of literature and arts). Ohio. Kenyon College.  
Ind. Butler College. Tex. Trinity University (B. S. and B. L.).  
Ohio. University of Cincinnati.

(To include 2 of one language: Lat., Gk., Ger., or Fr.)

Ill. Augustana College. Iowa. Grinnell College (1st method).  
Illinois College. Kans. Washburn College.  
Knox College.  
Kans. Fairmount College.  
Mo. Drury College.

(Three of one language, or 3 of language, including Lat. 2.)

Ill. James Millikin University.

LIST OF 114 COLLEGES NOT REQUIRING MORE THAN 3 UNITS OF  
FOREIGN LANGUAGE—Continued.

## THREE UNITS REQUIRED—Continued.

(To include Latin 2.)

Nebr. Doane College. | D. C. Howard University.

(Three of one language: Lat., Gk., Ger., Fr., or Sp.)

Ind. De Pauw University.

Nebr. University of Nebraska.

(Three of one language: Lat., Gk., Ger., or Fr.)

Ind. Hope College.

Kans. College of Emporia.

(Three of one language: Lat. or Ger.)

Kans. University of Kansas.

Bethany College.

(Latin 3.)

Idaho. University of Idaho.

Kans. Baker University.

Washburn College.

La. Tulane University of Louisiana.

Mo. Missouri Valley College.

## THREE OR FOUR UNITS REQUIRED.

Conn. Wesleyan University.<sup>1</sup>Ind. Indiana University.<sup>2</sup>Mass. Tufts College.<sup>1</sup>N. Y. Adelphi College.<sup>3</sup>Tex. University of Texas.<sup>4</sup>Trinity University.<sup>4</sup>N. J. Rutgers College.<sup>5</sup>N. Y. Colgate University.<sup>6</sup>N. Y. Syracuse University.<sup>7</sup>

In addition to the above 114 colleges, Bucknell University (Pa.) admits to the B. S. on 3 of foreign language, but requires that this shall consist of two languages, Latin 2 and either German 1 or French 1.

The University of Pennsylvania admits to the course leading to the B. S. in commerce on 2 units of one language: Latin, Greek, German, French, Spanish, or Italian; and Cornell University (N. Y.) admits to the course leading to the B. Chem. on 3 units of German or 3 units of French.

The University of Denver will accept substitutes for the prescribed languages.

## NATURAL SCIENCE.

*For the A. B. course.*

Only 94 colleges prescribe any natural science for the A. B. course:

3 colleges prescribe ½ unit—

Georgetown University, D. C., specifies physical geography and accepts no other science.

Union University, N. Y., specifies physiology and accepts no other science.

<sup>1</sup> Will admit to the A. B. course on Lat. 4 or Gk. 2.<sup>2</sup> Three of one language, or 2 of each of two of the following languages: Lat., Gk., Ger., and Fr.<sup>3</sup> Lat. 4, or 3 of Gk., Ger., Fr., or Sp.<sup>4</sup> Three of one language, or 2 of each of two of the following languages: Lat., Gk., Ger., Fr., and Sp.<sup>5</sup> Three of one language, or 2 of each of two of the following languages: Lat., Ger., and Fr.<sup>6</sup> Three of one language: Ger., Fr., Sp., or Italian, or Lat. 2 and 2 of the following: Ger., Fr., Sp., or Italian.<sup>7</sup> Italian.



## 77 colleges prescribe 1 unit—

51 allow choice of any science given in the table as receiving credit.

2 allow choice of any laboratory science.

2 allow choice of any advanced laboratory science.

1 allows choice of physics, chemistry, botany, zoology, or physiology.

1 allows choice of physics, chemistry, botany, zoology, or botany  $\frac{1}{2}$  and zoology  $\frac{1}{2}$ .

2 allow choice of physics, chemistry, botany, or zoology.

1 allows choice of physics, chemistry, botany, or biology.

1 allows choice of physics, chemistry, or botany.

3 allow choice of physics, chemistry, or biology.

5 allow choice of physics or chemistry.

8 specify physics.

1 college prescribes  $1\frac{1}{2}$  units—

Augustana, Ill., allows choice of sciences tabulated as accepted.

## 12 colleges prescribe 2 units—

4 allow credit for any sciences tabulated as accepted, viz, University of Colorado, Colorado College, Catholic University of America, D. C., and Manhattan College, N. Y.

Trinity University, Tex., specifies physics or chemistry 1, physiography  $\frac{1}{2}$ , and physiology  $\frac{1}{2}$ .Central University of Iowa specifies physics 1, botany  $\frac{1}{2}$ , and either zoology or physiography  $\frac{1}{2}$ .

The 6 colleges in Kansas require 1 unit of physical science and 1 unit of biological science.

[Lebanon Valley College, Pa., specifies physics and chemistry for students specializing in science.]

1 college prescribes  $2\frac{1}{2}$  units—

Otterbein University, Ohio, allows choice of sciences tabulated as accepted.

*For other courses.*

Of the 94 colleges that prescribe science for the A. B. course, 36 prescribe additional science for the B. S.

Of the 109 colleges that do not prescribe science for the A. B. course, 26 prescribe science for one or more other courses.

Only 5 colleges prescribe more than two units of science for any course in liberal arts, viz, Central University of Iowa, B. S., Alfred University, N. Y., B. S., Denison College, Ohio, B. S., Otterbein University, Ohio, A. B., Grove City College, Pa., B. S.

## HISTORY.

*For the A. B. course.*

Of the 203 colleges conferring A. B., 163 prescribe history:

1 college prescribes  $\frac{1}{2}$  unit—Bates College, Me., specifies Roman history  $\frac{1}{2}$ .

## 130 colleges prescribe 1 unit—

102 allow choice of several history courses.

12 specify ancient history.

5 specify United States history and civics.

2 specify European history.

1 specifies general history.

2 require that Roman history ( $\frac{1}{2}$ ) be included.1 requires that ancient history ( $\frac{1}{2}$ ) be included.

1 requires that Roman history ( $\frac{1}{2}$ ) be included, and also Greek history ( $\frac{1}{2}$ ) if Greek is offered.

1 requires ancient and English history, or United States history and civics.

1 requires both ancient and modern history, counting as 1 unit.

1 requires any two of a number of history subjects, but counts each as only  $\frac{1}{2}$  unit.

5 colleges prescribe  $1\frac{1}{2}$  units—

3 allow choice of several history subjects.

1 specifies ancient history and United States history and civics.

1 requires that United States history and civics be included.

27 colleges prescribe 2 units—

11 allow choice of several history subjects.

5 specify ancient history and United States history and civics.

1 requires ancient history 1, and medieval and modern combined 1.

2 specify ancient, English, and United States history and civics.

1 specifies ancient, English, Biblical, and United States history and civics.

3 require that ancient history be included.

1 requires ancient history, which it evaluates at 2 units, or English and United States history and civics.

1 requires United States history and civics and either ancient or English history.

1 requires that English history, evaluated at  $\frac{1}{2}$  unit, be included.

SUBJECTS ACCEPTED.

As discussed in Chapter I, the adjustment of high school and college is greatly affected by the extent to which the various high-school subjects are recognized as counting toward college admission.

In the following list, the subjects are arranged according to the number of colleges by which they are now recognized as counting toward admission for the A. B. course:

Subjects	Colleges accepting it.	Additional colleges that will consider it.	Subject.	Colleges accepting it.	Additional colleges that will consider it.
Latin.....	203		Spanish.....	118	2
Greek.....	202		Shopwork.....	97	9
German.....	197		Economics.....	92	7
Physics.....	196		Business.....	88	10
Chemistry.....	194		Agriculture.....	80	9
French.....	192		Household economics.....	79	10
Botany.....	181		Geology.....	64	3
Zoology.....	175		Music.....	62	9
Physiography.....	174	1	Astronomy.....	54	3
Physiology.....	151	1	General introductory science.....	43	4
Drawing.....	124	10			

TABLE 1.—Distribution of 203 colleges of liberal arts, PART I—According to the number of units prescribed for admission to the A. B. course for September, 1912.

Number of units.	According to total units required.	According to prescribed units.							According to elective units.
		Eng-lish.	Mathe-matics.	Foreign lan-guage.	Natural science.	History and civics.	Draw-ing.	Total pre-scribed.	
1	2	3	4	5	6	7	8	9	10
0		7	9	16	108	40	202	7	6
1				1	3	1			2
2				1	77	130			18
3		1				5		1	10
4		12	53	38	12	27			13
5			109		1				12
6		176	31	27				1	14
7			1						23
8		7		49					9
9									13
10				16				2	16
11									9
12					33			5	9
13					1				3
14					18			4	10
15					1			2	1
16					1			10	6
17								2	2
18								9	3
19								18	
20								11	2
21								14	
22								16	
23								26	
24								13	1
25								21	
26								10	
27								13	1
28								4	
29		39						3	
30		31						3	6
31		115						3	
32		5						3	1
33		12						4	
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100									
Average	14.8	2.9	2.3	4.0	0.5	1.0	0.0	10.7	4.1

TABLE 1.—Distribution of 263 colleges of liberal arts, PART II—According to maximum number of units accepted in each subject for admission to the A. B. course for September, 1912.

Number of units	Foreign language										Natural science										Social science					Vocational subjects					Free margin for any subjects from approved schools
	English	Mathematics	Talun	Greek	German	French	Spanish	In all foreign languages	Physics	Chemistry	Physiography	Geology	Astronomy	Botany	Zoology	Biology	Physiology	General Intro.	In all natural history and science	History and civics	Economics	In all social science	Drawing	Shopwork	Household economics	Agriculture	Business	In all vocational subjects	Music		
1	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		

Note.—In addition to the colleges that will give credit as indicated above, the following subjects will be considered by the number of colleges indicated:

- French.....
- Spanish.....
- Physiography.....
- Geology.....
- Astronomy.....
- Botany.....
- Zoology.....
- Biology.....
- Physiology.....
- General Introductory science.....
- Economics.....
- Drawing.....
- Shopwork.....
- Household economics.....
- Agriculture.....
- Business.....
- Vocational subjects.....
- Music.....

EXPLANATION OF TABLE 2.

Names of State institutions are printed in italics.  
*x*—subject is accepted and credit not limited, except as it is limited by the figure in the column headed "Sum not to exceed."  
*e*—*algebra* counted as 2 by the college, but as 1½ in the bulletin.  
*4*—acceptance will be considered.  
*!*—the sum of subjects thus designated must not exceed the limit stated in Supplementary Notes.  
*•*—particular subject or subjects specified as stated in Supplementary Notes.  
*•••*—see Supplementary Notes.  
 When requirements other than those for the A. B. course are separately tabulated, they are in italics.  
 The supplementary notes are arranged under the respective colleges. The colleges are arranged by States and numbered as in the table.  
 The full name and location of each college is also given.

TABLE 2.—Colleges of liberal arts—Entrance requirements for September, 1912, PART 1—Degrees, prescribed and elective units.

Institutions.	Men, women, coeducational.	Degrees.	Total units required.	Eng. lith.	Mathematics.	Prescribed units.						Total units prescribed.	Elective units.	
						Foreign language (details in supplementary notes).	Natural science.	History and civics.	Draw-ing.					
ALABAMA.														
1 <i>University of Alabama</i>	C	A. B.	14	3	3	5	1	1	8	9	10	11	12	1
Do.....	C	B. S.	14	1	3	5 (or 4)	2	1	8	7	10	11	12	5
ARIZONA.														
2 <i>University of Arizona</i>	C	A. B., B. S.	15	3	2½	2	1	1	8	9	10	11	12	5½
CALIFORNIA.														
3 <i>University of California</i>	C	A. B., B. L., B. S.	15	2	2	4	1½	1½	8	9	10	11	12	5
4 <i>Leland Stanford Junior University</i>	C	A. B.	13	1½	0	0	0	0	8	9	10	11	12	13
5 <i>Stanford University</i>	C	A. B.	13	0	0	0	0	0	8	9	10	11	12	13
6 <i>Mills College</i>	W.	A. B., B. L., B. S.	15	2	2	4	2	1	8	9	10	11	12	5*
7 <i>Oceanic College</i>	C	A. B., B. S.	15	2	2	2	2	1	8	9	10	11	12	7
8 <i>Pomona College</i>	C	A. B.	15	2	2	2	2	1	8	9	10	11	12	8
9 <i>University of Southern California</i>	C	B. S.	15	2	2	2	2	1	8	9	10	11	12	6
10 <i>University of Southern California</i>	C	A. B.	15	2	2	2	2	1	8	9	10	11	12	7



TABLE 2.—Colleges of liberal arts—Entrance requirements for September, 1912, PART I—Continued.

Institutions.	Men, women, coeduca- tional.	Degrees.	Total units re- quired.	Prescribed units.							Total units pre- scribed.	Elective units.
				Eng- lish.	Mathe- matics.	Foreign language (includes diphtheria notes).	Natural Science.	History and civics.	Draw- ing.			
INDIANA.			4	5	6	7	8	9	10	11	12	
35. Indiana University.....	C	A. B.	16	3	3	3 (or 4)	1	1	1	11	5	
36. Purdue University.....	C	B. S.	15	3	2	2	1	1	1	10	5	
37. Butler College.....	C	A. B., B. S.	15	3	2	3	0	2*	1	11	4	
38. De Pauw University.....	C	A. B., B. S.	15	3	2	2	1	1	1	9	6*	
39. Eritham College.....	C	A. B.	15	3	2	2	1	1	1	9	6*	
40. Franklin College.....	C	A. B.	15	3	3	3	1	1	1	11	4	
41. Hanover College.....	C	A. B., Ph. B., etc.	16	4*	2*	7*	2*	2*	3*	16	0*	
42. University of Notre Dame.....	M.	A. B., B. S.	18	4*	3*	3*	1	1	1	16	2	
43. Wabash College.....	M.	A. B.	16	3	3	3	1	1	1	11	5	
IOWA.												
44. State University of Iowa.....	C	A. B., Ph. B.	15	3	2	2	0	2	1	15	0	
45. Central University of Iowa.....	C	A. B., B. S.	15	3	2	2	3*	2*	2*	15	0	
46. Coe College.....	C	A. B.	15	3	3	4	0	0	1	10	4	
47. Cornell College.....	C	A. B., B. S.	15	3	3	4	0	0	1	8	6	
48. Des Moines College.....	C	A. B., B. S.	15	3	3	4	0	0	1	11	4	
Do.....	C	Ph. B.	15	3	3	5	0	0	0	10	5	
Do.....	C	B. S.	15	3	3	3	0	0	0	8	7	
49. Drake University.....	C	A. B., Ph. B.	15	3	2	4	0	0	1	10	4	
50. Grinnell College.....	C	A. B.	15	3	2	4	0	1	1	10	5	
Do.....	C	A. B., B. S.	15	3	2	4	1	1	1	10	5	
Grinnell College (3d method).....	C	A. B., B. S.	15	3	0	0	0	0	0	0	15	
51. Mountaineer College.....	C	A. B.	15	3	2	2	0	0	1	9	6	
52. Parsons College.....	C	A. B., Ph. B.	15	3	2	2	1	1	1	11	4	
53. Do.....	C	A. B., B. S.	15	3	2	2	1	1	1	11	4	

Number	College Name	State	Degrees	Faculty	Students	Buildings	Library	Other	Notes
54	University of Kansas	KANSAS	A. B.	3	15	24	3	3	114
55	Baylor University		A. B.	3	15	24	3	2*	114
56	Bethany College		A. B.	3	15	24	3	2*	114
57	Emporia College		A. B.	3	15	24	3	2*	114
58	Marion College		A. B.	3	15	24	3	2*(or 0)	114
59	Washington College		A. B., B. S.	3	15	24	3	2*	114
60	State University of Kentucky	KENTUCKY	A. B.	3	15	24	3	1	114
61	Central University of Kentucky		B. S.	3	15	24	3	1	94
62	Georgetown College		A. B.	3	14	23	3	1	94
63	Louisiana State University	LOUISIANA	A. B.	3	14	23	3	1	12
64	Tulane University		B. S.	3	14	23	3	1 (or 0)*	12
65	University of Maine	MAINE	A. B.	3	14	23	3	0	104
66	Bates College		B. S.	3	14	23	3	0	12
67	Bowdoin College		A. B.	3	14	23	3	0	8
68	Colby College		B. S.	3	14	23	3	0	114
69	Goucher College	MARYLAND	A. B.	3	15	24	3	0	13
70	Johns Hopkins University		A. B.	3	15	24	3	0	13
71	Amherst College	MASSACHUSETTS	A. B.	3	14	23	3	0	124
72	Boston University		B. S.	3	14	23	3	0	124
73	Clark College		B. S.	3	14	23	3	0	124
74	Harvard University		A. B.	3	16	25	3	0	15
75	Holy Cross College		A. B.	3	14	23	3	0	15
76	Miami University		A. B.	3	14	23	3	0	15
77	Northwestern University		A. B.	3	14	23	3	0	15
78	Yale University		A. B.	3	14	23	3	0	15

\* See Supplementary Notes, p. 39.



TABLE 2.—Colleges of liberal arts—Entrance requirements for September, 1912, PART I—Continued.

Institutions.	Men, women, coeducational.	Degrees.	Total units required.	Prescribed units.						Total units prescribed.	Elective units.
				Eng-lish.	Mathe-matics.	Foreign language (details in supplementary notes).	Natural science.	History and civics.	Draw-ing.		
1	2	3	4	5	6	7	8	9	10	11	12
MASSACHUSETTS—continued.											
76 Smith College.....	W. V	A. B.	14	3	2	4	0	1		10	4
77 Tufts College.....	W. V	A. B.	15	3	2	4 (or 3)	0	1		10	4
Do.....	W. V	B. S.	15	3	2	2	0	1		8	7
78 Wesley College.....	W.	A. B.	14	3	2	7 <sup>a</sup>	0	1		13	6
79 Williams College.....	W.	A. B.	14	3	2 <sup>b</sup> (or 4)	7 (or 6)	0	1		13	1 to 2
MICHIGAN.											
80 University of Michigan.....	C.	A. B., B. S.	15	3	2	2	1 <sup>a</sup>	0		8	7 <sup>a</sup>
81 Albion College.....	C.	A. B.	15	3	2	2	1 <sup>a</sup>	0		8	15
82 Alma College.....	C.	A. B.	15	3	3	2	1 <sup>a</sup>	0		10	5
83 Hillsdale College.....	C.	A. B.	15	3	3	2	1 <sup>a</sup>	0		9	6
84 Hope College.....	C.	A. B.	15	3	0	2	0	0		0	15
85 Kalamazoo College.....	C.	A. B., B. S.	15	3	3	2	1 <sup>a</sup>	1		10	5
86 Olivet College.....	C.	A. B.	15	3	3	2	1 <sup>a</sup>	1		10	5
MINNESOTA.											
87 University of Minnesota.....	C.	A. B., B. S.	15	4 <sup>a</sup>	2	0	0	0		8	9 <sup>a</sup>
88 Carleton College.....	C.	B. S.	15	4	2	2	0	0		8	7
Do.....	C.	A. B.	16	4	3	0	0	0		11	4
89 Gustavus Adolphus College.....	C.	A. B.	15	0	0	0	0	0		0	9
90 Hamline University.....	C.	A. B.	15	0	0	0	0	0		0	15
91 Macalester College.....	C.	A. B.	15	3	2	0	0	0		5	15
92 St. Olaf College.....	C.	A. B.	15	3	2	0	0	0		5	10
MISSOURI.											
93 University of Missouri.....	C.	A. B.	15	3	2	2	0	0		7	8
94 Central College.....	C.	A. B.	15	3	3	3	0	1		12	2
95 Drury College.....	C.	B. S.	15	3	3	3	0	1		10	2
96 Missouri Valley College.....	C.	A. B., B. S.	15	3	3	3	0	1		10	4
97		A. B.	15	3	2	3	0	1		10	5

COLLEGES OF LIBERAL ARTS.

97	Park College	C.	A. B.	144	3	21 <sup>a</sup>	4	1	1	11	5
98	Washington University	C.	A. B.	15	3	21	5	1	1	12	5
99	William Jewell College	M.	A. B.	15	3	2	4	1	1	13	3
	Do	M.	A. B.	15	3	2	4	1	1	13	3
	MONTANA.										
100	University of Montana	C.	A. B., B. S.	15	4	2	2	1	1	10	5
	NEBRASKA.										
101	University of Nebraska	C.	A. B., B. S.	15	2	2	3	1	1	9	6
102	Doane College	C.	A. B.	15	2	24	3	0	0	8	6
	NEVADA.										
103	University of Nevada	C.	A. B., Div. 1.	15	2	2	4	0	0	8	7
	Do	C.	A. B., Div. 2.	15	2	2 (or 3)	2	0	0	8	7
	Do	C.	A. B., Div. 3.	15	2	2 (or 3)	2	2 (or 1)	0	8	7
	NEW HAMPSHIRE.										
104	Dartmouth College	M.	A. B.	144	3	21	6	0	1	12	2
	Do	M.	B. S.	144	3	21	2	1	1	12	3
	NEW JERSEY.										
105	Princeton University (new requirements)	M.	A. D.	13 <sup>a</sup>	3	21	7	0	0	12	21
	Princeton (new requirements)	M.	Litt. B., B. S.	13 <sup>a</sup>	3	21	6	0	0	11	21
	Princeton (alternative method)*	M.	A. B., Litt. B.	141	3	21 <sup>a</sup>	7	0	24	141	0
106	Princeton College	M.	B. S.	141	3	21 <sup>a</sup>	3 (or 4)	1	1	104	4
	Do	M.	B. S.	141	3	21 <sup>a</sup>	3 (or 4)	1	1	104	4
	NEW YORK.										
107	Adelphi College	C.	A. B.	144	3	21 <sup>a</sup>	3 (or 4)	0	1	94	5
108	Alfred University	C.	A. B.	15	3	2	4	0	0	12	3
	Do	C.	Ph. B.	15	3	2	4	1	2	12	3
	Do	C.	B. S.	15	3	3 <sup>a</sup>	2	3	0	12	3
	Do	C.	B. S.	15	3	3 <sup>a</sup>	2	3	0	12	3
109	Barnard College	W.	A. B.	144	3	21	4	0	0	94	5
	Do	W.	B. S.	144	3	21	4	0	0	94	5
	Do	W.	B. S.	144	3	21	4	0	0	94	5
110	Columbia University (new plan)	M.	A. B.	15	3	24	4 (or 5)	0	0	94	5
	Do	M.	B. S.	15	3	24	3 (or 4)	0	0	94	5
	Do	M.	B. S.	15	3	24	3 (or 4)	0	0	94	5
111	Columbia University	M.	A. B., B. S.	141	3	21	4	0	0	94	5
	Do	M.	B. S.	141	3	21	4	0	0	94	5
112	Cornell University	C.	A. B.	15	3	2	5	0	1	11	4
	Do	C.	B. Ch.	15	3	4	3	0	1	11	4
	Do	C.	B. Ch.	15	3	4	3	0	1	11	4
113	Emira College	W.	A. B.	141	3	21	6 (or 7)	0	1	12	7
	Do	W.	B. S.	141	3	21	6	0	1	12	7
	Do	W.	B. S.	141	3	21	6	0	1	12	7
114	Emira College (technical courses)*	M.	A. B.	16	3	3	8	0	2	16	0
	Fordham University	M.	A. B.	16	3	3	8	0	2	16	0

TABLE 2.—Colleges of liberal arts—Entrance requirements for September, 1912, PART I—Continued.

Institutions.	Men, women, coeducational.	Degrees.	Total units required.	Prescribed units.						Total units prescribed.	Elective units.	
				Eng-lish.	Mathe-matics.	Foreign language (details in supplementary notes).	Natural science.	History and civics.	Draw-ing.			
NEW YORK—continued.												
115 Hamilton College . . . . .	M.	A. B.	14	3	2 <sup>1</sup>	7	8	9	10	11	14	0
Do Do . . . . .	M.	Ph. B.	14	3	2 <sup>1</sup>	7	0	7 <sup>2</sup>	10	11	14	0
116 Hobart College . . . . .	M.	A. B.	14	3	2 <sup>1</sup>	6 (or 4)	0	13 <sup>2</sup>	10	11	13	2 <sup>1</sup>
Do Do . . . . .	M.	B. S.	7 <sup>2</sup>	2	2	1	1	1	1	1	11	0
117 Manhattan College . . . . .	M.	A. B.	16	3	3 <sup>1</sup>	6	2	11 <sup>2</sup>	10	11	11	0
118 New York College of the City of Do . . . . .	M.	A. B.	14	3	2 <sup>1</sup>	6	0	11 <sup>2</sup>	10	11	11	0
119 New York Normal College of the City of Do . . . . .	M.	A. B.	15	3	2	5 (or 6)	1 (or 0)	11 <sup>2</sup>	10	11	12	3 <sup>1</sup>
120 New York University . . . . .	M.	A. B., B. S.	15	3	2	5 (to 7)	0	0	0	10	10	5
Do Do . . . . .	M.	B. S. (Sect. C).	16	3	3 <sup>1</sup>	7 <sup>2</sup>	1 <sup>2</sup>	0	0	11 <sup>2</sup>	11 <sup>2</sup>	5 <sup>1</sup>
121 Rochester University . . . . .	C.	A. B.	14	3	2 <sup>1</sup>	6 (or 7)	0	1 <sup>2</sup>	1 <sup>2</sup>	12 <sup>2</sup>	12 <sup>2</sup>	1 <sup>1</sup>
Do Do . . . . .	C.	A. B.	14	3	2 <sup>1</sup>	4	2 <sup>2</sup>	1	1	12 <sup>2</sup>	12 <sup>2</sup>	1 <sup>1</sup>
122 St. Lawrence University . . . . .	C.	A. B.	14	3	2	6 (or 7)	1	1 <sup>2</sup>	1 <sup>2</sup>	13	13	1 <sup>2</sup>
Do Do . . . . .	C.	B. S.	14	3	2	2	2	0	0	10	10	1 <sup>1</sup>
123 Syracuse University . . . . .	C.	A. B.	15	3	2 <sup>1</sup>	6 (or 7)	1 (or 0)	1 <sup>2</sup>	1 <sup>2</sup>	13 <sup>2</sup>	13 <sup>2</sup>	1 <sup>1</sup>
Do Do . . . . .	C.	B. S.	16	3	2 <sup>1</sup>	5 (or 4)	2	0	1	12 <sup>2</sup>	12 <sup>2</sup>	2 <sup>1</sup>
Do Do . . . . .	C.	B. S. in Chem.	16	3	3 <sup>1</sup>	6	2 <sup>2</sup>	0	1	14 <sup>2</sup>	14 <sup>2</sup>	0
124 Union College . . . . .	M.	A. B.	14 <sup>2</sup>	3	2 <sup>1</sup>	6 (or 7)	1 <sup>2</sup>	2 <sup>2</sup>	1	14	14	0
Do Do . . . . .	M.	Ph. B.	14	3	2 <sup>1</sup>	6	1 <sup>2</sup>	2 <sup>2</sup>	1	14	14	0
125 Vassar College . . . . .	M.	A. B.	14	3	2 <sup>1</sup>	7	0	11 <sup>2</sup>	10	11	10 <sup>2</sup>	5 <sup>1</sup>
Do Do . . . . .	M.	B. S.	14	3	2 <sup>1</sup>	7	0	11 <sup>2</sup>	10	11	10 <sup>2</sup>	5 <sup>1</sup>
126 Wells College . . . . .	W.	A. B.	14 <sup>2</sup>	3	2 <sup>1</sup>	7 (or 8)	0	1 <sup>2</sup>	1	13 <sup>2</sup>	13 <sup>2</sup>	1 <sup>1</sup>
NORTH CAROLINA.												
127 University of North Carolina . . . . .	M.	A. B.	14	3	3	5 <sup>1</sup>	0	2 <sup>2</sup>	2 <sup>2</sup>	13 <sup>2</sup>	13 <sup>2</sup>	1 <sup>1</sup>
Do Do . . . . .	M.	A. B.	14	3	3	4	1 <sup>2</sup> (or 0)	2 <sup>2</sup>	2 <sup>2</sup>	13 <sup>2</sup>	13 <sup>2</sup>	1 <sup>1</sup>
128 Trinity College . . . . .	C.	A. B.	14	3	2 <sup>1</sup>	6	0	2 <sup>2</sup>	2 <sup>2</sup>	11 <sup>2</sup>	11 <sup>2</sup>	2 <sup>1</sup>
Do Do . . . . .	C.	A. B.	14	3	2 <sup>1</sup>	4	0	2 <sup>2</sup>	2 <sup>2</sup>	11 <sup>2</sup>	11 <sup>2</sup>	2 <sup>1</sup>
129 Wake Forest College . . . . .	M.	A. B., B. S.	14	3	2 <sup>1</sup>	4	1	2 <sup>2</sup>	2 <sup>2</sup>	12 <sup>2</sup>	12 <sup>2</sup>	1 <sup>1</sup>

COLLEGES OF LIBERAL ARTS.

No.	Name	City	State	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100										
NORTH DAKOTA.																																																																																																			
100	University of North Dakota	Grand Forks	N.D.	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100										
OHIO.																																																																																																			
101	Ohio State University	Columbus	O.	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100										
PENNSYLVANIA.																																																																																																			
102	Penn State College	University Park	P.	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100									

COLLEGE ENTRANCE REQUIREMENTS.

TABLE 2.—Colleges of liberal arts—Entrance requirements for September, 1912, PART I—Continued.

Institutions.	Men, women, coeducational.	Degrees.	Total units required.	Prescribed units.						Total units prescribed.	Elective units.
				Eng. lish.	Mathematics.	Foreign language (including supplementary notes).	Natural science.	History and civics.	Draw. lug.		
1	2	3	4	5	6	7	8	9	10	11	12
PENNSYLVANIA—continued.											
146 Dickinson College . . . . .	C.	A. B.	14	3	2½	7	0	0		14	0
Do . . . . .	C.	Ph. B.	14	3	2½	6 (or 7)	1 (or 0)	1½		14	0
Do . . . . .	C.	Ph. B.	14	3	2½	6 (or 7)	1 (or 0)	1½		14	0
Do . . . . .	C.	Ph. B.	14	3	2½	6 (or 7)	1 (or 0)	1½		14	0
147 Franklin and Marshall College . . . . .	M.	A. B., Ph. B.	14½	3	2½	6	1	1		14½	1
148 Grove City College . . . . .	C.	A. B.	15	3	2	6	0	0		11	4
Do . . . . .	C.	Ph. B.	15	3	2	6	0	0		11	4
Do . . . . .	C.	Ph. B.	15	3	2	6	0	0		11	4
149 Harvard College . . . . .	C.	A. B.	14½	3	2½	6 (or 7)	0	0		10½	4
Do . . . . .	C.	Ph. B.	14½	3	2½	6 (or 7)	0	0		10½	4
Do . . . . .	C.	Ph. B.	14½	3	2½	6 (or 7)	0	0		10½	4
150 Lafayette College . . . . .	M.	A. B.	14	3	2½	6	0	2*		14	0
Do . . . . .	M.	Ph. B.	14	3	2½	6	0	2*		14	0
Do . . . . .	M.	Ph. B.	14	3	2½	6	0	2*		14	0
Do . . . . .	M.	Ph. B.	14	3	2½	6	0	2*		14	0
Do . . . . .	M.	Ph. B.	14	3	2½	6	0	2*		14	0
151 Lehigh University . . . . .	C.	A. B.	15	3	2½	5	1* (or 2)	1		15½	0
Do . . . . .	C.	Ph. B.	15	3	2½	5	1* (or 2)	1		15½	0
Do . . . . .	C.	Ph. B.	15	3	2½	5	1* (or 2)	1		15½	0
152 Lehigh University . . . . .	M.	A. B.	14½	3	2½	6 (or 7)	0	2*		15½	1
Do . . . . .	M.	Ph. B.	14½	3	2½	6 (or 7)	0	2*		15½	1
Do . . . . .	M.	Ph. B.	14½	3	2½	6 (or 7)	0	2*		15½	1
153 Muhlenberg College . . . . .	C.	A. B.	14	3	2½	6	0	1*		12½	1½
Do . . . . .	C.	Ph. B.	14	3	2½	6	0	1*		12½	1½
Do . . . . .	C.	Ph. B.	14	3	2½	6	0	1*		12½	1½
Do . . . . .	C.	Ph. B.	14	3	2½	6	0	1*		12½	1½
154 Pennsylvania College . . . . .	C.	A. B., B. S.	14½	3	2½	6 (or 7)	0	1 (or 0)		12½	2
Do . . . . .	C.	Ph. B.	14½	3	2½	6 (or 7)	0	1 (or 0)		12½	2
Do . . . . .	C.	Ph. B.	14½	3	2½	6 (or 7)	0	1 (or 0)		12½	2
155 Pennsylvania College (2d method) . . . . .	C.	A. B., B. S.	14½	3	2½	6 (or 7)	0	4* (or 3)		15½	1
Do . . . . .	C.	Ph. B.	14½	3	2½	6 (or 7)	0	4* (or 3)		15½	1
Do . . . . .	C.	Ph. B.	14½	3	2½	6 (or 7)	0	4* (or 3)		15½	1
156 Pennsylvania, University of . . . . .	C.	A. B.	14½	3	2½	6 (or 7)	0	1		10½	4
Do . . . . .	C.	Ph. B.	14½	3	2½	6 (or 7)	0	1		10½	4
Do . . . . .	C.	Ph. B.	14½	3	2½	6 (or 7)	0	1		10½	4
157 Pittsburgh, University of . . . . .	C.	A. B.	15	3	2	6	0	0		12	3
Do . . . . .	C.	Ph. B.	15	3	2	6	0	0		12	3
158 Swarthmore College . . . . .	C.	A. B.	14½	3	2½	6 (or 7)	0	1		11½	3
Do . . . . .	C.	Ph. B.	14½	3	2½	6 (or 7)	0	1		11½	3
159 Temple University . . . . .	C.	A. B.	15	3	2	6	0	0		12	3
Do . . . . .	C.	Ph. B.	15	3	2	6	0	0		12	3
Do . . . . .	C.	Ph. B.	15	3	2	6	0	0		12	3

COLLEGES OF LIBERAL ARTS.

169	Urbana College.....	C.	A. B.	144	3	24	6	0	1*	2*	144	0	
170	Do.....	C.	B. S.	144	3	34	4	2*	2*	2*	144	0	
171	Washington and Jefferson College.....	M.	A. B.	14	3	24	6	0	0	0	111	24	
	Do.....	M.	B. S.	14	3	24	4	0	0	0	111	44	
	Do.....	W.	A. B.	144	3	24	4	0	0	0	124	44	
	Do.....	W.	A. B.	144	3	24	6	0	0	0	124	2	
	RHODE ISLAND.												
172	Brown University.....	*	A. B.	144	3	24	7	0	0	1*	134	1	
	Do.....	*	Ph. B.	144	3	24	6	0	0	1	114	3	
	SOUTH CAROLINA.												
173	Converse College.....	W.	A. B.	14	3	24	4	1	1	1	114	24	
174	Wofford College.....	M.	A. B.	14	3	24	4	0	0	1*	104	34	
	SOUTH DAKOTA.												
175	University of South Dakota.....	C.	A. B.	15	3	24	0	0	0	0	5	10	
176	Do.....	C.	A. B., B. S.	15	3	24	2	1	24	2	10	3	
177	Yankton College.....	C.	A. B.	13	3	2	2	1	2	2	10	3	
	TENNESSEE.												
178	University of Tennessee.....	C.	A. B., B. S.	14	3	24	4	0	0	0	94	44	
179	Do.....	C.	A. B., B. S.	15	3	34	34	1	1	1	114	34	
180	University of the South.....	M.	A. B.	14	3	3	4	0	0	0	11	3	
181	Vanderbilt University.....	C.	A. B.	14	3	3	7	0	0	0	13	1	
	Do.....	C.	B. S.	14	3	3	4	1	1	1	12	2	
	TEXAS.												
182	University of Texas.....	C.	A. B.	14	3	24	3 (or 4)	0	0	2	104	34	
183	Baylor University.....	C.	A. B.	14	3	24	3	1	2*	2*	114	24	
184	Do.....	C.	A. B.	14	3	24	3 (or 3)	0	0	0	114	24	
185	Trinity University.....	C.	A. B., B. L., B. S.	14	3	24	3 (or 4)	0	0	2*	124	44	
	UTAH.												
186	University of Utah.....	C.	A. B.	15	3	2	0	0 (or 1)*	1	1	6	9	
	VERMONT.												
187	University of Vermont.....	C.	A. B., Ph. B.	144	3	24	6 (or 7)	0	0	1*	124	2	
188	Middlebury College.....	C.	A. B.	14	3	24	6 (or 7)	0	0	0	114	24	
	Do.....	M.	B. S.	14	3	24	2	0	0	0	74	64	
	VIRGINIA.												
189	University of Virginia.....	M.	A. B., B. S.	14	3	24	4	0	0	1	104	34	
190	Randolph-Macon College.....	M.	A. B.	14	3	24	6 (or 7)	0	0	1	124	14	
	Do.....	M.	B. S.	14	3	24	2	0	0	1	84	64	
191	Randolph-Macon Woman's College.....	W.	A. B.	144	3	24	6	0	0	1	134	1	

TABLE 2.—Colleges of liberal arts—Entrance requirements for September, 1912, PART I—Continued.

Institutions.	Men, women, coeducational.	Degrees.	Total units required.	Prescribed units.							Total units prescribed.	Elective units.
				Eng. lish.	Mathematics.	Foreign language [details in supplementary notes].	Natural science.	History and civics.	Draw-ing.			
1	2	3	4	5	6	7	8	9	10	11	12	
VIRGINIA—continued.												
192 Richmond College.....	C.	A. B.	14	3	2	0	0	1		5	8	
193 Roanoke College.....	M.	A. B.	14	3	2	5	1	1		13	1	
194 Washington and Lee University.....	M.	A. B., B. S., LL. B.	14	3	2	0	0	1		6	8	
WASHINGTON.												
195 University of Washington.....	C.	A. B., B. S.	15	3	2	4	1	1		11	3	
Do.....	C.	A. B., B. S.	15	4	3	2	2	1		12	3	
196 State College of Washington.....	C.	A. B., B. S.	15	3	2	2	1	1		9	5	
197 Whitman College.....	C.	A. B., B. S.	16	0	0	0	0	0		0	16	
WEST VIRGINIA.												
198 West Virginia University.....	C.	A. B., B. S.	15	3	2	2	1	1		9	6	
Do.....	C.	B. S.	16	3	2	2	1	1		10	6	
WISCONSIN.												
199 University of Wisconsin.....	C.	A. B., B. S.	14	2	2	2	0	0		6	8	
200 Beloit College.....	C.	A. B., B. S.	15	2	2	2	1	1		8	7	
201 Carroll College.....	C.	A. B., B. S.	15	2	2	2	1	1		8	7	
202 Lawrence College.....	C.	A. B.	15	3	2	2	1	1		9	6	
203 Ripon College.....	C.	A. B.	15	2	2	2	1	1		8	7	
WYOMING.												
204 University of Wyoming.....	C.	A. B.	15	3	2	2	0	0		7	8	

TABLE 2.—Colleges of liberal arts—Entrance requirements for September, 1912, PART II—Maximum number of units accepted in each subject.

Institutions.	Foreign languages.										Natural sciences.										Social sciences.					Vocational subjects.					Other subjects from approved high schools.
	English.	Mathematics.	Latin.	Greek.	German.	French.	Spanish.	Sum not to exceed.	Physics.	Chemistry.	Physiography.	Theology.	Astronomy.	Botany.	Zoology.	Biology.	Physiology.	General Introductory.	Sum not to exceed.	History and civics.	Economics.	Sum not to exceed.	Drawing.	Shopwork.	Household economics.	Agriculture.	Business.	Sum not to exceed.	Music.		
1	18	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	
ALABAMA.																															
1 University of Alabama.....	3	3	4	0	2	2	0	0	1	1	1	1	0	1	1	0	1	0	2	2	0	2	1	1	0	1	1	1	0	0.	
Do.....	5	5	4	0	3	3	0	0	1	1	1	1	0	1	1	0	1	0	2	2	0	2	1	1	0	1	1	1	0	0.	
ARIZONA.																															
2 University of Arizona.....	(x)	(x)	(x)	(x)	(x)	(x)	(x)	7	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	6	(x)	(x)	6	(x)	(x)	(x)	(x)	(x)	(x)	(x)	5	Any 5.
CALIFORNIA.																															
3 University of California.....	4	5	4	3	4	4	2	9	1	1	1	0	0	1	1	1	1	6	4	3	7	2	3	3	3	3	5	3	0.		
4 Leland Stanford Junior University.....	4	4	4	3	4	4	4	13	1	1	1	0	4	1	1	2	1	9	4	1	5	4	2	1	2	3	11	4	Bible 1.		
5 Leland Stanford Junior University (2d method).....	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	Any 15.
6 Mills College.....	4	5	4	3	4	4	2	9	1	1	1	0	0	1	1	1	1	8	4	3	7	2	3	2	3	1	3	5	3	Bible 1.	
7 Occidental College.....	4	4	4	3	4	4	2	9	1	1	1	0	0	1	1	1	1	8	4	3	7	2	3	2	3	1	3	5	3	0.	
8 Pomona College.....	4	5	4	3	3	3	2	9	1	1	1	0	0	1	1	1	1	0	4	4	3	4	2	3	3	1	3	5	2	0.	
9 Do.....	4	5	4	3	3	3	2	7	1	1	1	0	0	1	1	1	1	0	4	4	3	4	2	3	3	1	3	5	2	0.	
10 University of Southern California.....	3	3	4	3	2	2	2	9	1	1	1	(c)	(c)	1	(c)	1	(c)	0	4	(c)	(c)	4	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
COLORADO.																															
9 University of Colorado.....	4	4	4	4	4	4	4	7	2	2	1	0	0	1	1	1	1	0	5	1	1	5	1	2	1	1	1	1	0	0.	Pay 1.
10 Colorado College.....	4	4	4	3	2	2	2	7	1	1	1	0	0	1	1	1	1	0	5	3	0	3	1	0	0	0	0	0	0	0.	0.
11 Denver University.....	4	4	4	3	4	4	4	8	1	1	1	2	3	3	3	3	3	0	5	4	1	5	3	3	0	0	1	3	0	0.	Pay 1.



COLLEGE ENTRANCE REQUIREMENTS.

TABLE 2.—Colleges of liberal arts—Entrance requirements for September, 1913, PART II—Maximum number of units accepted in each subject—Contd.

Institutions.	Foreign languages.										Natural sciences.										Social sciences.						Vocational subjects.						Other subjects from approved high schools.
	English.	Mathematics.	Latin.	Greek.	German.	French.	Spanish.	Sum not to exceed.	Physics.	Chemistry.	Physiography.	Geology.	Astronomy.	Botany.	Zoology.	Biology.	Physiology.	General Introductory.	Sum not to exceed.	History and civics.	Economics.	Sum not to exceed.	Drawing.	Shopwork.	Household economics.	Agriculture.	Business.	Sum not to exceed.	Music.				
12 Trinity College (old method).....	3	4	1	3	3	3	0	8	1	1	0	0	0	0	0	0	0	0	2	2	0	2	0	0	0	0	0	0	0	0	0.		
12 Wesleyan University.....	3	4	4	3	3	3	0	8	1	1	1	0	0	1	1	1	1	0	4	4	0	4	0	0	0	0	0	0	0	0	0.		
14 Yale University.....	3	3	4	3	4	3	0	10	1	1	0	0	0	0	0	0	0	2	4	4	0	2	0	0	0	0	0	0	0	0	0.		
DISTRICT OF COLUMBIA.																																	
15 Catholic University of America.....	3	2	4	2	3	3	1	7	1	1	1	0	0	1	1	1	1	0	2	2	0	2	0	0	0	0	0	0	0	0	0.		
16 Georgetown University.....	3	3	4	2	1	1	0	7	0	0	0	0	0	0	0	0	0	3	3	2	0	2	0	0	0	0	0	0	0	0	0.		
17 George Washington University.....	3	3	4	2	3	4	2	8	2	2	1	0	0	2	2	2	1	0	0	4	2	6	1	2	2	0	0	0	0	0	0.		
18 Howard University (colored).....	3	3	4	2	2	2	(c)	9	1	1	(c)	(c)	(c)	1	1	(c)	(c)	3	3	3	(c)	4	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)		
Do.....	3	3	4	2	2	2	(c)	8	1	1	(c)	(c)	(c)	1	1	(c)	(c)	3	3	3	(c)	4	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)		
Do.....	3	3	4	2	2	2	(c)	8	1	1	(c)	(c)	(c)	1	1	(c)	(c)	3	3	3	(c)	4	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)		
Trinity College.....	3	2	4	3	3	3	2	9	1	1	0	0	0	1	1	0	0	2	2	0	2	0	0	0	0	0	0	0	0	0	0.		
FLORIDA.																																	
20 Stetson University.....	3	3	4	3	3	3	1	9	1	1	1	1	1	1	1	1	1	0	4	4	3	5	2	2	0	0	0	0	0	0	0.		
Do.....	3	3	4	3	3	3	1	9	1	1	1	1	1	1	1	1	1	0	4	4	3	5	2	2	0	0	0	0	0	0	0.		
GEORGIA.																																	
21 University of Georgia.....	4	4	4	3	3	3	2	6	1	1	0	0	0	1	1	0	0	1	3	1	3	1	3	1	0	0	0	0	0	0	0.		
22 Agnes Scott College.....	3	3	4	3	3	3	0	8	1	1	1	1	1	1	1	1	1	0	1	3	1	3	1	0	0	0	0	0	0	0	0.		
23 Emory College.....	3	3	4	3	3	3	0	7	1	1	1	1	1	1	1	1	1	0	2	1	3	1	0	0	0	0	0	0	0	0	0.		







TABLE 2.—Colleges of liberal arts—Entrance requirements for September, 1912, PART II—Maximum number of units accepted in each subject—Contd.

Institutions.	Foreign languages.										Natural sciences.										Social sciences.			Vocational subjects.					Other subjects from approved high schools.	
	English.	Mathematics.	Latin.	Greek.	German.	French.	Spanish.	Sum not to exceed.	Physics.	Chemistry.	Physiography.	Geology.	Astronomy.	Botany.	Zoology.	Biology.	Physiology.	General introductory.	Sum not to exceed.	History and civics.	Economics.	Sum not to exceed.	Drawing.	Shopwork.	Household economics.	Agriculture.	Business.	Sum not to exceed.		Music.
1.	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
<b>MINNESOTA.</b>																														
87 University of Minnesota.....	4	3	4	2	4	4	4	9	1	1	1	1	1	1	1	0	0	0	6	4	3	3	4	4	4	4	4	0	0	0.
88 Carleton College.....	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	Any 7.
Do.....	5	3	4	2	2	0	0	9	1	1	1	0	0	0	1	1	1	0	5	3	3	3	1	1	1	1	1	1	1	Any 7.
89 Gustavus Adolphus College.....	5	3	4	2	2	0	0	9	1	1	1	0	0	0	1	1	1	0	5	3	3	3	1	1	1	1	1	1	1	Any 7.
90 Hamline University.....	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	Any 7.
91 Macalester.....	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	Any 7.
92 St. Olaf College.....	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	Any 7.
<b>MISSOURI.</b>																														
93 University of Missouri.....	4	4	4	4	4	4	4	10	2	2	1	0	0	2	2	1	1	0	8	4	3	5	2	2	1	1	1	0	0	0.
94 Central College.....	4	4	4	4	4	4	4	7	1	1	1	0	0	1	1	1	0	0	3	4	4	4	1	1	1	1	1	1	1	0.
Do.....	4	3	4	3	3	3	3	7	1	1	1	0	0	1	1	1	0	0	4	4	4	4	1	1	1	1	1	1	1	0.
95 Drury College.....	4	3	4	3	3	3	3	7	1	1	1	0	0	1	1	1	0	0	4	4	4	4	1	1	1	1	1	1	1	0.
96 Missouri Valley College.....	4	3	4	3	3	3	3	8	1	1	1	0	0	1	1	1	0	0	3	3	3	3	1	1	1	1	1	1	1	0.
97 Park College.....	4	3	4	3	3	3	3	7	1	1	1	0	0	1	1	1	0	0	3	3	3	3	1	1	1	1	1	1	1	Bible 1.
98 Webster University.....	4	3	4	3	3	3	3	7	1	1	1	0	0	1	1	1	0	0	3	3	3	3	1	1	1	1	1	1	1	0.
99 William Jewell College.....	4	3	4	3	3	3	3	7	1	1	1	0	0	1	1	1	0	0	3	3	3	3	1	1	1	1	1	1	1	0.
Do.....	4	3	4	3	3	3	3	7	1	1	1	0	0	1	1	1	0	0	3	3	3	3	1	1	1	1	1	1	1	0.
<b>MONTANA.</b>																														
100 University of Montana.....	4	4	4	4	4	4	4	7	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	6	(x)	(x)	6	2	2	2	2	4	5	2	0.
<b>NEBRASKA.</b>																														
101 University of Nebraska.....	4	3	4	3	3	3	3	7	1	1	1	0	0	1	1	1	0	0	7	3	4	4	1	1	1	1	1	1	1	0.
102 Doane College.....	3	3	4	3	3	3	3	9	1	1	1	0	0	1	1	1	0	0	6	3	4	4	1	1	1	1	1	1	1	0.













TABLE 2.—Colleges of liberal arts.—Entrance requirements for September, 1912, PART II.—Maximum number of units accepted in each subject—Contd.

Institutions.	Foreign languages.										Natural sciences.										Social sciences.					Vocational subjects.					Other subjects from approved high schools.
	English.	Mathematics.	Latin.	Greek.	German.	French.	Spanish.	Sum not to exceed.	Physics.	Chemistry.	Physiography.	Geology.	Astronomy.	Botany.	Zoology.	Biology.	Physiology.	General introductory.	Sum not to exceed.	History and civics.	Economics.	Sum not to exceed.	Drawing.	Shopwork.	Household economics.	Agriculture.	Business.	Sum not to exceed.	Music.		
189	4	3	4	2	2	2	2	7	1	1	1	1	0	0	1	0	0	0	4	0	0	4	1	0	0	0	0	0	0	0.	
190	4	3	4	2	2	2	2	7	1	1	1	1	0	0	1	0	0	0	4	0	0	4	0	0	0	0	0	0	0.		
191	4	3	4	2	2	2	2	7	1	1	1	1	0	0	1	0	0	0	4	0	0	4	0	0	0	0	0	0	0.		
192	4	3	4	2	2	2	2	7	1	1	1	1	0	0	1	0	0	0	4	0	0	4	0	0	0	0	0	0	0.		
193	4	3	4	2	2	2	2	7	1	1	1	1	0	0	1	0	0	0	4	0	0	4	0	0	0	0	0	0	0.		
194	4	3	4	2	2	2	2	7	1	1	1	1	0	0	1	0	0	0	4	0	0	4	0	0	0	0	0	0	0.		
195	4	3	4	2	2	2	2	7	1	1	1	1	0	0	1	0	0	0	4	0	0	4	0	0	0	0	0	0	0.		
196	4	3	4	2	2	2	2	7	1	1	1	1	0	0	1	0	0	0	4	0	0	4	0	0	0	0	0	0	0.		
197	4	3	4	2	2	2	2	7	1	1	1	1	0	0	1	0	0	0	4	0	0	4	0	0	0	0	0	0	0.		
198	3	3	4	2	2	2	2	8	1	1	1	1	0	0	1	0	0	0	6	3	1	3	1	1	1	1	1	2	0.		
199	4	4	4	2	4	4	4	10	2	2	2	2	0	0	2	0	0	0	4	5	3	5	4	4	4	4	4	4	Any 1. <sup>a</sup>		
200	5	4	4	2	4	4	4	10	2	2	2	2	0	0	2	0	0	0	4	4	1	4	4	4	4	4	4	4	0.		
201	4	3	4	2	2	2	2	9	1	1	1	1	0	0	1	0	0	0	5	4	0	4	0	1	1	1	1	2	(c)		
202	4	3	4	2	2	2	2	9	1	1	1	1	0	0	1	0	0	0	4	4	0	4	1	1	1	1	1	1	(c)		
203	4	4	4	2	4	4	4	10	2	2	2	2	0	0	2	0	0	0	4	4	3	4	4	4	4	4	4	4	Any 4.		
University of Wyoming	4	3	4	2	4	4	4	10	1	1	1	1	0	0	1	0	0	0	5	3	1	4	3	3	2	2	2	2	0	Pay. 4. ped.	

### SUPPLEMENTARY NOTES.

1. University of Alabama, University, Ala.
  - A. B. Requires Latin 3, and 2 of German or French.  
Latin 4 is desired. If Greek is taken in college, German or French need not be presented.
  - B. S. Requires German 2 or French 2 or Latin 4.
2. University of Arizona, Tucson, Ariz.

Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
Specifies physics or chemistry or biology.
3. University of California, Berkeley, Cal.
  - A. B., B. L. Requires 4 of foreign language, including Latin 2.
  - B. S. Requires 4 of foreign language.  
Specifies an advanced science with laboratory work.  
Specifies United States history and civics.  
Limits sum of economics, shopwork, household economics, agriculture, business, and music to 3.
4. Leland Stanford Junior University, Stanford University, Cal.

Second method: "Undergraduate standing, without further tests, is granted to graduates of approved schools who have completed a regular four-years' course, amounting to not less than 15 entrance units, and who are fully recommended to the university."
5. Mills College, Mills College, Cal.
  - A. B. Requires 4 of classical language, including Latin 2.
  - B. L. Requires 4 of foreign language, including Latin 2.
  - B. S. Requires 4 of foreign language.  
Specifies laboratory science of third or fourth year.  
Course in home economics specifies physics and requires free-hand drawing 1.
6. Occidental College, Los Angeles, Cal.

Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
Specifies physics, chemistry, botany, zoology, or physiology.  
Limits sum of shopwork, household economics, agriculture, business, and music to 3.
7. Pomona College, Claremont, Cal.

Requires 2 of one language: Latin, Greek, German, or French.

  - A. B. Requires 2 of foreign language and English in addition to foreign language 2 and English 2.
  - B. S. Requires 2 of mathematics and laboratory science in addition to mathematics 2 and science 1.  
Limits sum of botany, zoology, biology, physiography, and physiology to 2.  
Limits sum of shopwork, household economics, agriculture, and business to 3.
8. University of Southern California, Los Angeles, Cal.

Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
Specifies United States history and civics.  
Consideration given to subjects not mentioned.
9. University of Colorado, Boulder, Colo.

Requires 4 of one language or of two combined.  
Students presenting Greek 3 need not offer more than 1 of science.  
Limits sum of economics and vocational subjects to 3.  
Substitutes may be allowed for some of the prescribed work in case 15 units of accepted work is offered.  
The colleges of commerce and education have the same requirements as the college of liberal arts.

10. Colorado College, Colorado Springs, Colo.  
Requires 4 of foreign language, including Latin 2.  
If Greek is offered, not more than 1 of science is required.
11. University of Denver, University Park, Colo.  
Requires 4 of foreign language.  
Specifies physics.  
Limits sum of botany, zoology, and physiology to 2.  
Limits sum of physiography, geology, and astronomy to 2.  
Substitutes for any of the prescribed work will be accepted from the list of subjects tabulated as accepted.
12. Trinity College, Hartford, Conn.  
Requires 4 of foreign language, of which 3 for the A. B. must be classical.  
Second method: A graduate of a school "which has an approved four-year course of study (including English, mathematics, and foreign languages)" may be admitted by a special examination plan.
13. Wesleyan University, Middletown, Conn.  
A. B. Requires Latin 4 or Greek 3.  
B. S. Requires 2 of German or French.  
A. B. Specifies ancient history.
14. Yale University, New Haven, Conn.  
Requires Latin 4, and 2 of German or French.  
If both German and French are offered, 16½ units instead of 15½ are required.
15. Catholic University of America, Washington, D. C.  
Requires Latin 4, and 3 of Greek, German, or French.
16. Georgetown University, Washington, D. C.  
Requires three foreign languages: Latin 4, Greek 2, and 1 of German, French, or Spanish.  
Specifies physiography ½.  
Specifies United States history and civics, ancient, English, and Biblical history.
17. George Washington University, Washington, D. C.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish.
18. Howard University (for colored), Washington, D. C.  
A. B. Requires Latin 4 and Greek 2.  
B. S. (First method.) Requires Latin 4, and 1 German or French.  
B. S. (Second method.) Requires 3 of foreign language, including Latin 2; and required mathematics consists of algebra 1 and plane and solid geometry 1½.  
One unit credit given for any work at discretion of college.
19. Trinity College, Washington, D. C.  
Requires Latin 4, and 3 of Greek, German, or French.
20. John B. Stetson University, Deland, Fla.  
A. B. Requires 4 of foreign language.  
B. S. Requires 3 of foreign language.  
Accepts 3 of drawing and shopwork from technical students.
21. University of Georgia, Athens, Ga.  
Requires Latin 3, and 2 of Greek, German, French, or Spanish.
22. Agnes Scott College, Decatur, Ga.  
Requires Latin 3, and 2 of Greek, German, or French.  
Requires 1 of advanced mathematics, advanced language, physics, or chemistry.
23. Emory College, Oxford, Ga.  
A. B. Requires Latin 3 and Greek 2.  
Ph. B., B. S. Requires Latin 3 and French 2.  
Specifies ancient history.

24. University of Idaho, Moscow, Idaho.  
 A. B. Requires Latin 3.  
 B. S. Requires 2 of one language: Latin, German, French, or Spanish.  
 B. S. Requires 2 additional units selected from English, mathematics, foreign language, science, and history.
25. University of Illinois, Urbana, Ill.  
 The work in liberal arts is divided between two colleges, "literature and arts" and "science," both of which give the A. B. degree. "Science" gives B. S. also.  
 "Literature and arts." Requires 3 of foreign language, including 2 in one language: Latin, Greek, German, French, or Spanish.  
 "Science." Does not require foreign language, except that chemical engineering requires German 2.  
 Limits sum of shopwork, household economics, agriculture, bookkeeping (1), and business (½) to 2 for "literature and arts," and to 3 for "science." Drawing 1 and commercial geography ½ may be presented in addition.
26. Augustana College, Rock Island, Ill.  
 Requires 3 of foreign language, including 2 of one language: Latin, Greek, German, or French.  
 Accepts Swedish 4, history of education ½, and Christianity 1 to 2.
27. University of Chicago, Chicago, Ill.  
 Requires 2 academic majors (of which English shall be one) of 3 units each, and one academic minor of 2 units.  
 Requires at least 10 units of academic work and accepts for the other 5 units any work that an approved school counts for graduation.
28. Illinois College, Jacksonville, Ill.  
 Requires 3 of foreign language, including 2 of one language: Latin, Greek, German, or French.  
 Specifies a laboratory science.
29. James Millikin University, Decatur, Ill.  
 A. B. Requires (a) 3 of one language: Latin, Greek, German, or French, or (b) 3 of foreign language, including Latin 2.  
 B. S. Does not require foreign language.
30. Knox College, Galesburg, Ill.  
 Requires 3 of foreign language, including 2 of one language: Latin, Greek, German, or French.
31. Lake Forest College, Lake Forest, Ill.  
 Requires (a) 4 of one language: Latin, Greek, German, or French, or (b) 4 of foreign language, including 2 of Latin or Greek.
32. Monmouth College, Monmouth, Ill.  
 A. B. Requires 4 of classical language.  
 B. S. Requires 4 of foreign language, including 2 of Latin or Greek.  
 Specifies ancient history ½, and civics or American history or English history ½.
33. Northwestern University, Evanston, Ill.  
 Requires Latin 4, or 4 of two languages combined: Latin, Greek, German, French, or Spanish. Accepts 2 of vocational subjects and other work not specified, but commercial geography ½ and commercial law ½ may be presented in addition.
34. Rockford College, Rockford, Ill.  
 A. B. Requires Latin 4 and 2 of Greek, German, or French.  
 B. S. Requires Latin 2 and 2 of German or French.  
 B. S. Specifies physics or chemistry.  
 A. B. No credit given for science unless physics or chemistry is included.

35. Indiana University, Bloomington, Ind.  
Requires 3 of one language, or 2 of each of two languages: Latin, Greek, German, or French.
36. Purdue University, Lafayette, Ind.  
Gives only the B. S. degree.  
Requires 2 of one language: Latin, German, or French.
37. Butler College, Indianapolis, Ind.  
Requires 3 of foreign language, including 2 of one language: Latin, Greek, German, French, or Spanish. No credit given for one unit of Latin.
38. DePauw University, Greencastle, Ind.  
Requires 3 of one language: Latin, Greek, German, French, or Spanish.  
Specifies United States history and civics 1, and ancient history 1.
39. Earlham College, Richmond, Ind.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
Specifies physics, chemistry, botany, or biology.  
Requires two academic majors (of which English shall be one).  
Requires at least 11 units of academic work.
40. Franklin College, Franklin, Ind.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
Requires two academic majors (of which English shall be one).  
Requires at least 11 units of academic work.
41. Hanover College, Hanover, Ind.  
Requires 3 of one language: Latin, Greek, German, or French.
42. Notre Dame University, Notre Dame, Ind.  
A. B., Ph. B., Litt. B., and B. in Journalism. Requires Latin 4, and 3 of Greek, German, or French.  
B. S. Requires Latin 2, and 2 of German or French.  
B. S. Specifies physics or chemistry.  
B. S. Requires drawing  $\frac{1}{2}$ .  
Substitutes for some of the prescribed work will be accepted from the subjects which are given as receiving credit.
43. Wabash College, Crawfordsville, Ind.  
Requires 3 of foreign language.
44. State University of Iowa, Iowa City, Iowa.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
Limits sum of natural science and agriculture to 4.  
Limits sum of advanced arithmetic ( $\frac{1}{2}$ ), double-entry bookkeeping (1), commercial geography ( $\frac{1}{2}$ ), commercial law ( $\frac{1}{2}$ ), and industrial history ( $\frac{1}{2}$ ) to 2.  
Limits sum of drawing (1), shopwork (1), household economics (1), and stenography (1) to 2.
45. Central University of Iowa, Pella, Iowa.  
A. B. Requires Latin 4 and Greek 2.  
Ph. B. Requires Latin 4 and German 2.  
B. S. Requires Latin 3 and German 2.  
Plane and solid geometry are required and counted together as one unit.  
Specifies physics 1, botany  $\frac{1}{2}$ , and zoology or physiography  $\frac{1}{2}$ .  
B. S. Specifies also chemistry 1.  
Specifies United States history and civics 1, and ancient history 1.  
Accepts either zoology or physiography, but not both.
46. Coe College, Cedar Rapids, Iowa.  
A. B. Requires Latin 4, or 4 of two languages combined.  
B. S. Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
Accepts nature study 1 and pedagogy 1.

47. Cornell College, Mount Vernon, Iowa.  
A. B. Requires 4 of foreign language, including Latin 2.  
B. S. Requires 2 of foreign language.
48. Des Moines College, Des Moines, Iowa.  
A. B. Requires 4 of foreign language.  
Ph. B. Requires 3 of foreign language.  
/ B. S. Requires 2 of foreign language.  
One unit of Latin will not be accepted.
49. Drake University, Des Moines, Iowa.  
A. B., Ph. B. Requires 4 of Latin or Greek, or Latin 2 and Greek 2.  
B. S. Requires 2 of one language or of two combined: Latin, Greek, German, or French.  
Accepts Swedish 2, Danish-Norwegian 2, Icelandic 2.
50. Grinnell College, Grinnell, Iowa.  
A. B. Requires 4 of foreign language, including 2 of one language: Latin, Greek, German, or French.  
B. S. Requires 3 of foreign language, including 2 of one language: Latin, Greek, German, or French.  
Accepts under business only double-entry bookkeeping †.  
Second method. A student who is recommended as a graduate of an accredited high school of excellent standing will be admitted on any fifteen units tabulated as accepted.
51. Morningside College, Sioux City, Iowa.  
Requires 2 of one language: Latin, Greek, German, or French.
52. Parsons College, Fairfield, Iowa.  
Requires 2 of one language: Latin, Greek, or German.  
Specifies physics.
53. Penn College, Oskaloosa, Iowa.  
A. B. Requires 4 of Latin or Greek, or of Latin and Greek combined.  
Ph. B. Requires (a) 4 of Latin or Greek, or (b) 2 of Latin, and 2 of German or French.  
B. S. Requires 2 of one language: Latin, Greek, German, or French.
54. University of Kansas, Lawrence, Kans.  
Requires Latin 3 or German 3.  
Specifies a physical science 1 (physics, chemistry, or physiography), and a biological science 1 (botany, zoology, or physiology).  
Additional credit for vocational subjects, psychology, and pedagogy may be allowed when work is specially approved.
55. Baker University, Baldwin, Kans.  
Requires Latin 3.  
Specifies science in the same manner as the University of Kansas.
56. Bethany College, Lindsborg, Kans.  
Requires Latin 3 or German 3.  
Specifies science in the same manner as the University of Kansas, but will accept also botany  $\frac{1}{2}$  and zoology  $\frac{1}{2}$  for the required biological science.
57. College of Emporia, Emporia, Kans.  
Requires 3 of one language: Latin, Greek, German, or French.  
Specifies science in the same manner as the University of Kansas.
58. Fairmount College, Wichita, Kans.  
Require 3 of foreign language, including 2 of one language: Latin, Greek, German, or French.  
If Greek 3 is not offered, 2 units of science must be offered as specified by the University of Kansas. Will accept also botany  $\frac{1}{2}$  and zoology  $\frac{1}{2}$  for the required biological science.



59. Washburn College, Topeka, Kans.  
 A. B. Requires Latin 3.  
 B. S. Requires 3 of foreign language, including 2 of one language: Latin, Greek, German, or French.  
 Specifies science in the same manner as the University of Kansas.
60. State University, Lexington, Ky.  
 A. B. Requires Latin 4.  
 B. S. Requires 2 of foreign language.  
 Accepts surveying  $\frac{1}{2}$  and teaching experience 1.
61. Central University of Kentucky, Danville, Ky.  
 A. B. Requires 4 of foreign language, including Latin 3.  
 B. S. Requires 2 of one language: Latin, Greek, German, French, or Spanish.
62. Georgetown College, Georgetown, Ky.  
 A. B. Requires 4 of foreign language, including Latin 3.  
 B. S. Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
 Accepts surveying  $\frac{1}{2}$  and six months' teaching experience from holder of first-class certificate 1.
63. Louisiana State University, Baton Rouge, La.  
 Requires Latin 2, or 1 of Greek, German, French, or Spanish.
64. Tulane University of Louisiana, New Orleans, La.  
 A. B. Requires (a) Latin 3 and Greek 2, or (b) Latin 3, science 1, and history 1.  
 B. S. Requires 2 of one language: Latin, German, French, or Spanish.  
 B. S. Requires (a) 2 of history or (b) a third unit in the foreign language presented and an additional unit of mathematics.
65. University of Maine, Orono, Me.  
 Requires (a) 4 of one language: Latin, German or French; or (b) 2 of each of two: Latin, Greek, German, French, or Spanish.
66. Bates College, Lewiston, Me.  
 A. B. Requires Latin 4, and 2 of Greek, German, or French.  
 B. S. Requires 2 of German or French.  
 A. B. Specifies Roman history  $\frac{1}{2}$ .  
 B. S. Specifies United States history and civics  $\frac{1}{2}$ .  
 Allows only  $\frac{1}{2}$  unit credit each for English history, United States history and civics, Greek history, and Roman history.  
 New Harvard Plan also offered as an alternative method.
67. Bowdoin College, Brunswick, Me.  
 A. B. Requires Latin 3, and 2 of Greek, German, or French.  
 B. S. Requires 2 of one language: Latin, Greek, German, or French.  
 A. B. Specifies Roman history  $\frac{1}{2}$ .  
 Allows only  $\frac{1}{2}$  unit credit each for English history, United States history and civics, Greek history, and Roman history.
68. Colby College, Waterville, Me.  
 A. B. Requires Latin 4, and Greek 3 or German 2 or French 2.  
 B. S. Requires 2 of German or French.  
 A. B. Specifies Roman history  $\frac{1}{2}$ .  
 Allows only  $\frac{1}{2}$  unit credit each for English history, United States history and civics, Greek history, and Roman history.
69. Goucher College, Baltimore, Md.  
 Requires Latin 2, but Latin 4 $\frac{1}{2}$  is preferred.
70. Johns Hopkins University, Baltimore, Md.  
 Requires 3 foreign languages unless both Latin and Greek are offered: Latin 4, and either Greek 3, or both German 1 $\frac{1}{2}$  and French 1 $\frac{1}{2}$ .  
 Specifies English and United States history and civics 2, or ancient history 2.  
 Specifies algebra 1 $\frac{1}{2}$ , plane geometry 1, and trigonometry  $\frac{1}{2}$ .  
 Freehand drawing also required, but not assigned value in units.

71. Amherst College, Amherst, Mass.  
 A. B. Requires Latin 4 and Greek 3, or two foreign languages, including either Latin 4 or Greek 3. If both Latin and Greek are not offered, one advanced subject is required. See catalogue for details.  
 B. S. Requires Latin 3, and 2 of German or French.  
 A. B. Specifies ancient history.  
 B. S. Specifies physics or chemistry.  
 B. S. Electives must include 1 of an advanced subject. See catalogue.  
 B. S. Will be discontinued after September, 1913.
72. Boston University, Boston, Mass.  
 A. B. Requires Latin 4, and 2 of German or French.  
 Litt. B. Requires Latin 3, and 2 of German or French.  
 B. S. Requires German 3 and French 2, or German 2 and French 3.  
 Litt. B., B. S. Specifies physics.  
 A. B. Specifies ancient history.  
 B. S. Specifies United States history and civics, English history, and ancient history.  
 Three electives must be chosen for A. B. or B. S. and four for Ph. B., but these electives vary in time required for preparation from one-half to two years, frequently increasing the total number of required units. For details see catalogue.
73. Clark College, Worcester, Mass.  
 Makes no requirement in terms of specific subjects, but admits graduates of approved high schools if satisfied that the student is capable of doing the college work.  
 Harvard College, Cambridge, Mass.  
 According to the new plan the student must submit his high-school record and take four examinations.  
 The subjects are as follows:  
 (1) English.  
 (2) Latin, if a candidate for A. B.; German or French, if a candidate for B. S.  
 (3) Mathematics or a science.  
 (4) Mathematics or science, if not offered under (3); or history or a second foreign language.  
 His program must show that he devoted his time chiefly to English, foreign language, mathematics, science, and history; that none of these subjects has been entirely omitted, and that two of them have been pursued to an advanced point.  
 The candidate, if admitted, will be admitted without condition.  
 The old plan for admission is also continued.
74. College of the Holy Cross, Worcester, Mass.  
 Requires Latin 4, and 3 of Greek, German, or French.  
 Specifies United States history and civics, English history, and ancient history.  
 Elective unit must consist of advanced mathematics or chemistry or physics, 1.
75. Mount Holyoke College, South Hadley, Mass.  
 Requires Latin 4, and 3 of Greek, German, or French.  
 Elective unit must consist of third foreign language (German or French) or physics or chemistry or botany or music.
76. Smith College, Northampton, Mass.  
 After 1912, 14½ units are required as follows: English 3, mathematics 2½, history 1, Latin or Greek 4, and elective 4. The 4 elective units may consist of: (a) 4 of a second language: Latin, Greek, German, or French; (b) 3 of a second language: Latin, Greek, German, or French; and 1 of German, French,

- chemistry, physics, botany, zoology, astronomy, geography, music, advanced English, advanced mathematics, advanced history, advanced Latin, or advanced Greek; (c) 4 selected from: Greek 2, French 2, German 2, history 2, chemistry 1, physics 1, botany 1, zoology 1, and astronomy 1.
77. Tufts College, Tufts College, Mass.  
 A. B. Requires Latin 4 or Greek 3.  
 B. S. Requires 2 of one language: Latin, Greek, German, or French.  
 A separate college known as Jackson College is provided for women.  
 The entrance requirements are the same, except that shopwork is not accepted for admission to Jackson College.
78. Wellesley College, Wellesley, Mass.  
 Requires Latin 4, and 3 of Greek, German, or French. Spanish 3 would probably be accepted.  
 Elective unit must consist of a third language or science or history or music.  
 In 1914 the foreign language requirement will be reduced to 6, and 2 of science accepted, if offered.
79. Williams College, Williamstown, Mass.  
 Requires Latin 4, and Greek 3 or German 2 or French 2.  
 Specifies ancient history.  
 If 3 of Greek, German, or French, and advanced mathematics  $\frac{1}{2}$  are offered, the student will be admitted on 14 units. Otherwise 14 $\frac{1}{2}$  to 16 units are required and college credit sometimes given for the excess.  
 For details, see catalogue.
80. University of Michigan, Ann Arbor, Mich.  
 No applicant will be admitted who presents less than 15 units.  
 First method: Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
 Specifies physics, chemistry, botany, or zoology.  
 Requires two academic majors of 3 units each; 2 of mathematics and 1 of physics are accepted as one major, in which case, a second unit of science is required.  
 Accepts half units in science in the following combinations only: Botany with zoology, zoology or botany with physiology, geology or physiology with physiography.  
 Second method: Graduates of schools approved by the North Central Association or of other specially approved schools, if satisfactorily recommended, will be admitted on any 15 units that include 12 academic units tabulated as accepted.
81. Albion College, Albion, Mich.  
 Requires 2 of one language: Latin, Greek, German, or French.  
 Specifies physics.  
 Economics, Spanish, or additional science would probably be considered.
82. Alma College, Alma, Mich.  
 Requires 2 of one language: Latin, Greek, German, or French.  
 Probably will accept vocational subjects as indicated.
83. Hillsdale College, Hillsdale, Mich.  
 Requires 2 of one language: Latin, Greek, German, or French.  
 Specifies physics.  
 After 1912 any laboratory science will be accepted in place of physics, and 2 of any vocational subject will be accepted, provided the sum of vocational subjects does not exceed 3 units.
84. Hope College, Holland, Mich.  
 Accepts from an approved school any 15 units tabulated as accepted.

85. Kalamazoo College, Kalamazoo, Mich.  
Requires 2 of one language: Latin, Greek, German, or French.  
Accepts 1 unit of subjects not listed.
86. Olivet College, Olivet, Mich.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
Specifies physics or chemistry.  
Accepts business for commercial course only.  
Accepts music for music course only.
87. University of Minnesota, Minneapolis, Minn.  
No applicant admitted with less than 15 units.  
Requires two academic majors (of which English shall be one) of 3 units each and one academic minor of 2 units.  
English requirement reduced to 3 when 4 of one foreign language is presented.  
A major or minor may consist of work in any one of the following languages: Latin, Greek, German, French, Spanish, or Scandinavian.  
A major or minor in mathematics is required, but foreign language is not required.  
A major or minor in history and social science may include any of the following: History  $\frac{1}{2}$  to 4, civics  $\frac{1}{2}$  or 1, elementary economics  $\frac{1}{2}$ , commercial geography  $\frac{1}{2}$  or 1, history of commerce  $\frac{1}{2}$  or 1, economic history of England  $\frac{1}{2}$ , and economic history of the United States  $\frac{1}{2}$ .  
Vocational subjects may include not more than 4 units of the following: Business law  $\frac{1}{2}$ , business arithmetic  $\frac{1}{2}$ , elementary bookkeeping 1, advanced bookkeeping 1, stenography and typewriting 2.  
In case the candidate did not have opportunity to take all the required subjects, a substitution may be authorized for one required unit.
88. Carleton College, Northfield, Minn.  
A. B. Requires Latin 2.  
B. S. Requires 2 of one language: Latin, Greek, German, or French.  
B. S. Specifies 2 of the following: Chemistry 1, physics 1, and biology 1.
89. Gustavus Adolphus College, St. Peter, Minn.  
Foreign language not required.  
Accepts Swedish 3 and Christianity 1.
90. Hamline University, St. Paul, Minn.  
Accepts any 15 units upon recommendation of an approved school.
91. Macalester College, St. Paul, Minn.  
Accepts any 15 units upon recommendation of an approved school.
92. St. Olaf College, Northfield, Minn.  
Requires 4 of Latin if applicant wishes to enter classical course.
93. University of Missouri, Columbia, Mo.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish.
94. Central College, Fayette, Mo.  
A. B. Requires Latin 4, and 1 of Greek, German, French, or Spanish.  
B. S. Requires Latin 2, and 2 of Greek, German, French, or Spanish.
95. Drury College, Springfield, Mo.  
Requires 3 of foreign language, including 2 of one language: Latin, Greek, German, or French.
96. Missouri Valley College, Marshall, Mo.  
Requires Latin 3.  
Specifies physics or chemistry or biology.  
Specifies ancient and modern history counting together as one unit.

97. Park College, Parkville, Mo.  
Requires Latin 4.
98. Washington University, St. Louis, Mo.  
Requires 3 of one and 2 of another of the following languages: Latin, Greek, German, French, or Spanish.  
Limits sum of civics and economics to 1.
99. William Jewell College, Liberty, Mo.  
Group A, "Literature." Requires Latin 4 and Greek 1.  
Group B, "Science." Requires Latin 4, or Latin 3 and German 1.  
Specifies physics.  
Specifies ancient history.
100. University of Montana, Missoula, Mont.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish.
101. University of Nebraska, Lincoln, Nebr.  
Requires 3 of foreign language.  
Specifies European history.  
Additional credit may be given to vocational subjects if a high school shows itself capable of offering more.
102. Doane College, Crete, Nebr.  
Requires 3 of foreign language, including Latin 2.  
Specifies European history.  
Accepts under business only bookkeeping 4.
103. State University of Nevada, Reno, Nev.  
Requires Latin 4 for Division 1, 2 of foreign language for Divisions 2 and 3.
104. Dartmouth College, Hanover, N. H.  
A. B. Requires Latin 4 and 2 of Greek, German, or French.  
B. S. Requires 2 of German or French.  
Allows 1 unit credit for 2 units of drawing.
105. Princeton University, Princeton, N. J. (New method.)  
A. B. Requires Latin 4 and Greek 3.  
Litt. B., B. S. Requires Latin 4 and 2 of German or French.  
History receives only half as much credit as an equal amount of other electives, and consequently when history 1 is offered 15½ units are required, and when history 2 is offered 16 units are required.  
An alternative method is open to candidates of exceptional ability and attainment who decide late in their school course to enter Princeton. Such candidates will be examined on the advanced portions of their work in the four principal subjects required for admission (i. e., Latin, English, mathematics, and Greek or modern language).
106. Rutgers College, New Brunswick, N. J.  
A. B., Litt. B. Requires Latin 4 and 3 of Greek, German, or French.  
A. B. is conferred if Greek is offered or taken in college.  
Litt. B. is conferred if Greek is not offered or taken in college.  
A. B., Litt. B. Specifies ancient history 1 as part of history requirement.  
B. S. Requires 3 of one or 2 of each of two of the following languages: Latin, German, and French.  
B. S. Specifies physics or chemistry.
107. Adelphi College, Brooklyn, N. Y.  
Requires Latin 4 or 3 of Greek, German, French, or Spanish.  
No credit is given for work in a third foreign language.  
Accepts botany, zoology, biology, and physiography only when studied in the third or fourth year of the high school.

108. Alfred University, Alfred, N. Y.  
 A. B. Requires Latin 4 and 3 of Greek, German, or French.  
 Ph. B. Requires 4 of one language or 2 of each of two: Latin, Greek, German, French, or Spanish.  
 B. S. Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
 B. S. Requires also drawing 1.  
 B. S. Specifies algebra 1, plane and solid geometry 1½, and plane trigonometry ½.
109. Barnard College, New York City, N. Y.  
 A. B. Requires Latin 4.  
 B. S. Does not require foreign language.  
 B. S. Requires 2 elective units selected from intermediate or advanced subjects: English, foreign language, mathematics, and history.
110. Colgate University, Hamilton, N. Y.  
 A. B. Requires (a) Latin 4; or (b) Latin 3 and 2 of Greek, German, or French; or (c) Greek 3 and 2 of Latin, German, or French.  
 B. S. Requires 3 of one or 2 of each of two of the following languages: Latin, German, or French.
111. Columbia College, New York City, N. Y.  
 A. B. Requires Latin 4.  
 B. S. Requires (a) Latin 4, or (b) physics 1 and chemistry 1 and 2 of intermediate or advanced subjects.
112. Cornell University, Ithaca, N. Y.  
 A. B. Requires 3 in one and 2 in another of the following languages: Latin, Greek, German, French, Spanish, and Italian.  
 B. Chem. Requires 3 of German or French.
113. Elmira College, Elmira, N. Y.  
 A. B. Requires Latin 4 and Greek 3 or German 2 or French 2.  
 B. S. Requires Latin 2 and modern language 3.  
 B. S. Science must include physics 1 or chemistry 1.  
 A. B. If Greek 3 is not offered, 1 elective unit must consist of history, science, or advanced modern language. The other elective unit is not restricted.  
 A four-year domestic science course and a secretarial course are also offered, for which substitutes may be accepted for admission.
114. Fordham University, New York City, N. Y.  
 Requires three foreign languages: Latin 4, Greek 2, and 2 of German, French, or Spanish.  
 Specifies United States history and civics, English history, and ancient history.
115. Hamilton College, Clinton, N. Y.  
 A. B. Requires Latin 4 and Greek 3.  
 Ph. B. Requires Latin 4 and German 3 or French 3, or German and French combined 3.  
 A. B. Specifies United States history and civics and Greek and Roman history.  
 Ph. B. Specifies United States history and civics and Roman history.
116. Hobart College, Geneva, N. Y.  
 A. B. Requires either Latin 4 or Greek 2, and 2 of a second language: Latin, Greek, German, French, or Spanish.  
 B. S. Requires 2 of each of two languages: Latin, Greek, German, French, or Spanish.
117. Manhattan College, New York City, N. Y.  
 Requires (a) Latin 4 and Greek 2, or (b) French 4 and German 2.  
 Specifies United States history and civics as part of the history requirement.

118. College of the City of New York, New York City, N. Y.  
 Requires 3 of one and 2 of another of the following languages: Latin, Greek, German, and French.  
 Requires two subjects selected from the following: Ancient history, medieval and modern history, English history, and United States history and civics.  
 Allows  $\frac{1}{2}$  unit credit only for each of the above history subjects.  
 B. S. Required mathematics consists of algebra 1 and plane and solid geometry 1.
119. Normal College of the City of New York, New York City, N. Y.  
 Requires 3 of one and 2 of another of the following languages: Latin, Greek, German, French, or Spanish.  
 Requires 1 of the third language or of science.  
 Specifies United States history and civics, or ancient and English history.  
 Requires 1 elective unit to be selected from advanced mathematics or fourth year foreign language or second year of a science.
120. New York University, New York City, N. Y.  
 Section A. Requires Latin 4 and Greek 3.  
 Section B. Requires either Latin 4 or Greek 3, and 2 of German or French.  
 Section C. Requires 2 of German and 2 of French.  
 Section C. Specifies physics or chemistry.
121. University of Rochester, Rochester, N. Y.  
 A. B. Requires Latin 4 and Greek 3 or German 2 or French 2. Would also accept Greek 3 and 2 of German or French.  
 B. S. Requires Latin 4 or 2 of each of two of the following languages: Latin, Greek, German, French, or Spanish.  
 B. S. Specifies physics and chemistry.  
 A. B. Specifies ancient history.  
 Credit is occasionally given for drawing and business.
122. St. Lawrence University, Canton, N. Y.  
 A. B. Specifies Latin 4 and Greek 3 or German 2 or French 2.  
 B. S. Requires 2 of German, French, or Latin.  
 Specifies ancient history.  
 A. B. If Greek 3 is not offered, the elective unit must consist of the third year of modern language or physics or chemistry.
123. Syracuse University, Syracuse, N. Y.  
 A. B. Requires Latin 4 and Greek 3 or German 2, French 2 or Spanish 2 or Italian 2.  
 A. B. Specifies Roman history  $\frac{1}{2}$ ; and if Greek is offered, Greek history  $\frac{1}{2}$ .  
 B. S. Requires (a) 3 of one language: German, French, Spanish, or Italian, or (b) Latin 2 and 2 of German, French, Spanish, or Italian.  
 B. S. in Chem. Requires 3 of German or French and 2 of a second modern language: German, French, Spanish, or Italian.  
 B. S. in Chem. Requires physics or chemistry as part of the science requirement.  
 B. S. and B. S. in Chem. Requires also drawing 1.  
 B. S. in Chem. Required mathematics may include either plane trigonometry or advanced algebra.
124. Union College, Schenectady, N. Y.  
 A. B. Requires Latin 4, and Greek 3, or German 2 or French 2. If Greek is offered, 15 units instead of 14 are required.  
 Ph. B. Requires Latin 4, and 2 of German or French.  
 A. B., Ph. B. Specifies physiology  $\frac{1}{2}$  and accepts no other science.  
 A. B., Ph. B. Specifies United States history and civics 1 and ancient history 1 and accepts no other history.  
 B. S. Requires 2 of German or French.

- B. S. Specifies physics 1 and physiology 1.  
 B. S. Specifies United States history and civics 1.  
 A six-year course conferring both Ph. B. and B. E. is offered, requiring 19 units for admission.
125. Vassar College, Poughkeepsie, N. Y.  
 Requires Latin 4, and 3 of Greek, German, or French.  
 Specifies ancient history.  
 The elective unit must consist of a third foreign language or physics or chemistry or United States history and civics.
126. Wells College, Aurora, N. Y.  
 Requires (a) Latin 4, and 2 of each of two of the following: Greek, German, and French, or (b) Latin 4, and 3 of Greek, German, or French, and 1 unit of a third foreign language, or physics or chemistry or botany or zoology.
127. University of North Carolina, Chapel Hill, N. C.  
 Requires (a) Latin 3½, and 2 of Greek, German, or French, or (b) 2 of each of two of the following: Greek, German, or French. If neither Latin nor Greek is offered, 1 of science is required.  
 Specifies United States history 1 and ancient or English history 1.
128. Trinity College, Durham, N. C.  
 Requires (a) Latin 4, and 2 of Greek, German, or French, or (b) German 2 and French 2.
129. Wake Forest College, Wake Forest, N. C.  
 Requires (a) Latin 4, or (b) Latin 2, German 1, and French 1.
130. University of North Dakota, Grand Forks, N. Dak.  
 Requires 2 of one language: Latin, Greek, German, French, Spanish, or Scandinavian.  
 Specifies physics or chemistry or biology.  
 Specifies ancient or general history.  
 Limits sum of physiography and geology to 1.  
 Limits sum of botany, zoology, and biology to 2.  
 Limits vocational subjects, not including agriculture, to 5; including agriculture, to 6.  
 Accepts Scandinavian 3 and teacher's subjects 2.
131. Fargo College, Fargo, N. Dak.  
 Requires 2 of foreign language.
132. Ohio State University, Columbus, Ohio.  
 Requires 4 of one language or 2 of each of two of the following: Latin, Greek, German, French, or Spanish.  
 Specifies physics or chemistry.
133. Buchtel College, Akron, Ohio.  
 A. B. Requires Latin 4.  
 Ph. B., B. S. Requires 4 of foreign language, including 2 of one language: Latin, Greek, German, or French.  
 A. B., Ph. B. Specifies general history.  
 B. S. Specifies 2 of science, including physics or chemistry.  
 Vocational subjects treated on merits of case.
134. University of Cincinnati, Cincinnati, Ohio.  
 Requires 3 of foreign language, including 2 of one language: Latin, Greek, German, French, or Spanish.
135. Denison University, Granville, Ohio.  
 A. B. Requires Latin 4 and Greek 2.  
 Ph. B., B. S. Requires 4 of foreign language.

<sup>1</sup> Seven units of science are accepted, but the excess over 4 receives only half credit, consequently 5½ is the maximum credit obtainable.



136. Kenyon College, Gambier, Ohio.  
 A. B. Requires Latin 4, and 2 of Greek, German, French, or Spanish.  
 B. L. Requires 4 of foreign language, including 2 of one language: Latin, Greek, German, French, or Spanish.  
 B. S. Requires 3 of foreign language, including 2 of one language: Latin, Greek, German, French, or Spanish.
137. Lake Erie College, Painesville, Ohio.  
 Requires 6 of foreign language, including Latin 3.  
 Accepts music upon examination only.
138. Marietta College, Marietta, Ohio.  
 Requires 4 of foreign language, including Latin 2.  
 Limits sum of psychology, pedagogy, and economics to 1.
139. Miami University, Oxford, Ohio.  
 Requires 4 of one or 2 of each of two of the following: Latin, Greek, German, or French.  
 Specifies physics or chemistry.  
 The normal college will offer the new entrance plan of the University of Chicago as an alternative, September, 1913.
140. Oberlin College, Oberlin, Ohio.  
 Requires 4 of foreign language, including 2 of Latin or Greek.
141. Ohio University, Athens, Ohio.  
 Recommends certain subjects for admission, but will accept any 15 units recommended by a first-class accredited high school.
142. Ohio Wesleyan University, Delaware, Ohio.  
 Requires 6 of two languages combined, including Latin or Greek for the A. B. and German or French for the B. S.
143. Otterbein University, Westerville, Ohio.  
 Requires 5 of foreign language, including Latin 3.
144. Western College for Women, Oxford, Ohio.  
 Requires 4 of foreign language, including Latin 2.
145. Western Reserve University, Cleveland, Ohio.  
 (For men) Adelbert College.  
 Requires 4 of foreign language, including Latin 2.  
 After 1912 requires (a) 4 of one language: Latin, German, French, Spanish, or Italian, or (b) 2 of each of two of the following: Latin, Greek, German, French, Spanish, or Italian; and the 5 elective units may be selected from the following: Foreign language, history, civics, physics (1), chemistry (1), and drawing (1).
146. Western Reserve University, Cleveland, Ohio.  
 (For women) The College for Women.  
 Requires 4 of one or 2 of each of two of the following: Latin, Greek, German, or French.  
 Accepts drawing when specially approved.
147. University of Wooster, Wooster, Ohio.  
 A. B. Requires Latin 4 and Greek 2.  
 Ph. B. Requires Latin 4 and German 2.  
 B. S. Requires 4 of foreign language, including German 2.  
 B. S. Specifies chemistry 1 as part of the science requirement, in case 2 additional units of foreign language are not offered.  
 Accepts nature study  $\frac{1}{2}$  and bird life  $\frac{1}{2}$ .
148. University of Oklahoma, Norman, Okla.  
 Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
 Specifies physics, chemistry, botany, zoology 1, or botany  $\frac{1}{2}$  and zoology  $\frac{1}{2}$ .  
 Limits sum of physiography and geology to 1.

149. University of Oregon, Eugene, Oreg.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
Specifies physics.
150. Reed College, Portland, Oreg.  
"No prescriptions whatever are made concerning the subjects to be offered for admission. In any foreign language, however, two or four units should be presented for entrance, in order to make the secondary school courses connect with the college courses, since each year of the work of the college in a foreign language covers the equivalent of two years of secondary school work in that language. In the same way, students who desire to study mathematics in college should arrange to satisfy the prerequisites of some freshman course in that department. The same mathematical prerequisites are practically essential to much work in any of the physical sciences."
151. Willamette University, Salem, Oreg.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
Specifies a laboratory science.
152. Pennsylvania State College, State College, Pa.  
Requires (a) Latin 4, and 3 of Greek, German, or French; or (b) Latin 4 and science 1; or (c) science 2 and 2 of one language: Latin, Greek, German, French, or Spanish.
153. Allegheny College, Meadville, Pa.  
A. B. Requires 4 of foreign language, including Latin 2.  
B. S. Requires 4 of foreign language.  
Specifies biology  $\frac{1}{2}$  as part of science requirement.
154. Bryn Mawr, Bryn Mawr, Pa.  
Requires three foreign languages, Latin 4 and 3 of each of two of the following: Greek, German, and French.
155. Bucknell University, Lewisburg, Pa.  
A. B. Requires Latin  $4\frac{1}{2}$  and Greek 3.  
Ph. B. Requires Latin  $4\frac{1}{2}$ , or Latin 2 and Greek 3.  
B. S. Requires Latin 2, and 1 of German or French.  
Ph. B., B. S. Requires solid geometry, counting it  $\frac{1}{2}$ , in addition to algebra 1 and geometry 1.  
Specifies physics or chemistry.  
Specifies United States history and civics and ancient history.  
Requires free-hand drawing  $\frac{1}{2}$ .
156. Dickinson College, Carlisle, Pa.  
A. B. Requires Latin 4 and Greek 3.  
Ph. B., B. S. (First method.) Requires (a) Latin 4 and 3 of German or French; or (b), Latin 4 and 2 of German or French, and science 1.  
Ph. B., B. S. (Second method.) Requires 2 of Latin or Greek, and 2 of German or French, and additional history 1, or advanced mathematics  $1\frac{1}{2}$ , or advanced foreign language 1.  
Ph. B., B. S. (Third method.) Requires German 2 and French 2 and advanced mathematics  $1\frac{1}{2}$ .  
Specifies ancient history 1 and United States history and civics  $\frac{1}{2}$ .
157. Franklin and Marshall College, Lancaster, Pa.  
Requires Latin 4, and 2 of Greek, German, or French.  
Limits sum of geology and biology to 1.
158. Grove City College, Grove City, Pa.  
A. B. Requires Latin 4, and 2 of Greek, German, or French.  
Ph. B. Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
B. S. Requires 2 of German or French.  
Vocational subjects considered on their merits.

159. Haverford College, Haverford, Pa.  
Requires Latin 4, and Greek 3 or German 2 or French 2.  
Specifies ancient history.
160. Lafayette College, Easton, Pa.  
A. B. Requires Latin 4 and Greek 2½.  
Ph. B. Requires Latin 4, and 1 of German or French.  
B. S. (First method.) Requires German 2 and French 2.  
B. S. (Second method.) Requires 2 of German or French.  
Ph. B., B. S. Specifies physics or chemistry 1 and physiography 1.  
If physiography was studied in the elementary school, another science must be taken in high school.  
A. B., Ph. B., B. S. Specifies ancient, medieval, modern, and United States history, counting together as 2 units. If United States history was studied in the elementary school, additional history must be taken in its place in the high school.  
Requires also a review of algebra.
161. Lebanon Valley College, Annville, Pa.  
Requires 5 of foreign language.  
Specifies physics. For chemistry-biology group, both physics and chemistry are specified.  
Accepts psychology ½ and pedagogy ½.
162. Lehigh University, South Bethlehem, Pa.  
A. B. Requires Latin 4, and Greek 3 or German 2 or French 2.  
Specifies ancient history 1 as part of history requirement.  
B. S. Requires 2 of German or French, or Latin 4.
163. Muhlenberg College, Allentown, Pa.  
A. B. Requires Latin 4, and 2 of Greek, German, or French.  
Ph. B., B. S. Requires Latin 3, and 2 of German or French.  
B. S. Specifies physics or chemistry.  
A. B., Ph. B. Specifies United States history and civics.
164. Pennsylvania College, Gettysburg, Pa.  
A. B. Requires Latin 4, and 2 of Greek, German, or French, and 1 of science or the third unit of Greek.  
B. S. (First method.) Requires Latin 4, and 2 of German or French, and science 1.  
B. S. (Second method.) Requires two of the following: Latin 3, German 2, and French 2.  
B. S. (Commerce.) Requires German 2 and French 2.  
B. S. (Commerce.) Specifies United States history and civics 1, English history 1, medieval and modern history 1, and either ancient history 1 or commercial arithmetic 1.
165. University of Pennsylvania, Philadelphia, Pa.  
A. B. Requires Latin 4 and Greek 3.  
B. S. Requires two of the following: Latin 4, German 2, French 2, Spanish 2, and Italian 2.  
B. S. in Commerce. Requires 2 of one language: Latin, Greek, German, French, Spanish, or Italian.
166. University of Pittsburgh, Pittsburgh, Pa.  
A. B. Requires 6 of foreign language, including Latin 2.  
B. S. Requires 2 of each of two of the following languages: Latin, Greek, German, French, and Spanish.

167. Swarthmore College, Swarthmore, Pa.  
Requires 4 of Latin, German, or French, or two selected from the following:  
Latin 2, Greek 3, German 2, and French 2.  
A graduate of an approved school may offer substitutes for some of the optional subjects.
168. Temple University, Philadelphia, Pa.  
A. B. Requires Latin 4, and Greek 3 or German 2 or French 2.  
B. S. Requires two selected from the following: Latin 4, Greek 3, German 2, and French 2, including either German or French.
169. Ursinus College, Collegeville, Pa.  
A. B. Requires Latin 4, and 2 of Greek, German, or French.  
B. S. Requires German 2, and 2 of Latin or French.  
A. B. Specifies physics or chemistry.  
B. S. Specifies physics 1 as part of the science requirement.  
A. B., B. S. Specifies ancient history 1 as part of the history requirement.
170. Washington and Jefferson College, Washington, Pa.  
A. B. Requires Latin 4, and 2 of Greek, German, or French.  
B. S. Requires two selected from the following: Latin 2, German 2, and French 2.
171. Wilson College, Chambersburg, Pa.  
Requires Latin 4, and 2 of Greek, German, or French.
172. Brown University, Providence, R. I.  
Has a separate department for women.  
A. B. Requires 7 of foreign language, including Latin 4 or Greek 3.  
Ph. D. Requires 5 of foreign language, including 2 of German or French.  
A. B. Specifies ancient history.
173. Converse College, Spartanburg, S. C.  
Requires Latin 3, and 1 of German or French.
174. Wofford College, Spartanburg, S. C.  
Requires 4 of foreign language. Latin 1 will not be accepted.  
Specifies United States history and civics.
175. University of South Dakota, Vermillion, S. Dak.  
Does not require foreign language.  
Vocational subjects considered on their merits.
176. Huron College, Huron, S. Dak.  
Requires 2 of one language: Latin, Greek, or German.
177. Yankton College, Yankton, S. Dak.  
Requires Latin 2 or German 2.
178. University of Tennessee, Knoxville, Tenn.  
A. B. Requires Latin 4.  
B. S. Requires 4 of foreign language.
179. Fisk University (colored), Nashville, Tenn.  
A. B. Requires Latin 3½.  
B. S. Requires 3½ of foreign language.
180. University of the South, Sewanee, Tenn.  
Requires Latin 4.
181. Vanderbilt University, Nashville, Tenn.  
A. B. Requires Latin 4 and Greek 3.  
B. S. Requires 4 of one foreign language, or 2 of each of two of the following:  
Latin, Greek, German, French, and Spanish.
182. University of Texas, Austin, Tex.  
Requires 3 of one language, or 2 of each of two of the following: Latin, Greek, German, French, or Spanish.

183. Baylor University, Waco, Tex.  
Requires 3 of foreign language.  
Specifies English history  $\frac{1}{2}$  as part of history requirement.  
Accepts pedagogy  $\frac{1}{2}$ , psychology  $\frac{1}{2}$ , and Bible 1.
184. Southwestern University, Georgetown, Tex.  
Requires Latin 3 or Greek 2 or German 2 or French 2 or Spanish 2.
185. Trinity University, Waxahachie, Tex.  
A. B. Requires 3 of one language, or 2 of each of two of the following: Latin, Greek, German, French, or Spanish.  
B. S., B. L. Requires 3 of foreign language, including 2 of one language: Latin, Greek, German, French, or Spanish.  
Specifies physics or chemistry 1, physiography  $\frac{1}{2}$ , and physiology  $\frac{1}{2}$ .  
Specifies ancient and medieval and modern history.  
B. S. Will be discontinued after 1913.
186. University of Utah, Salt Lake City, Utah.  
Does not require foreign language.  
Requires 1 of science for School of Education only.  
Accepts psychology  $\frac{1}{2}$ , pedagogy 1, Bible 1.  
Not more than 2 of agriculture are accepted unless accompanied by at least 1 of allied science. Not more than 1 of domestic science are accepted unless accompanied by 1 of chemistry. Domestic science, domestic art, and freehand drawing combined may equal 5.
187. University of Vermont, Burlington, Vt.  
Requires Latin 4, and Greek 3 or German 2 or French 2 or Spanish 2.  
Specifies ancient history.  
Accepts agriculture from agricultural high schools only.
188. Middlebury College, Middlebury, Vt.  
A. B. Requires Latin 4, and Greek 3 or German 2 or French 2.  
B. S. Requires 2 of Latin, German, or French.
189. University of Virginia, Charlottesville, Va.  
A. B. Requires Latin 4.  
B. S. Requires 2 of each of two modern languages: German, French, and Spanish.  
Limits sum of botany and zoology to 1.
190. Randolph-Macon College, Ashland, Va.  
A. B. Requires Latin 4, and Greek 3 or German 2 or French 2.  
B. S. Requires 2 of German or French.
191. Randolph-Macon Woman's College, Lynchburg, Va.  
Requires Latin 4, and 2 of Greek, German, French, or Spanish.
192. Richmond College, Richmond, Va.  
Does not require foreign language.
193. Roanoke College, Salem, Va.  
Requires 5 of foreign language, including Latin 3.  
Will require 15 units in 1913.
194. Washington and Lee University, Lexington, Va.  
Does not require foreign language.  
Accepts  $3\frac{1}{2}$  of mathematics, but the presentation of trigonometry involves extra work in college.
195. University of Washington, Seattle, Wash.  
Classical, modern language, and philosophical courses. Requires 4 of foreign language and specifies physics.  
Mathematical and science courses. Requires 2 of one language: Latin, Greek, German, French, or Spanish, and specifies physics 1 and either chemistry or biology 1, and requires 4 of English, unless 3 of one language is presented, in which case the English requirement is reduced to 3.

196. State College of Washington, Pullman, Wash.  
 Requires Latin 2.  
 Specifies physics.  
 Specifies United States history and civics.  
 Limits sum of English, history, and other social sciences to 8.  
 Limits sum of ancient languages to 4 and limits sum of modern languages to 4.  
 Limits sum of mathematics and natural science to 8.
197. Whitman College, Walla Walla, Wash.  
 Will accept from an approved school any 16 units selected from the subjects tabulated as accepted, but limits sum of English, history, civics, and economics to 6, and limits sum of mathematics and drawing to 4.
198. West Virginia University, Morgantown, W. Va.  
 A. B. Requires Latin 2.  
 B. S. Requires 2 of one language: Latin, German, French, or Spanish.  
 Specifies physics, chemistry, botany, or zoology.  
 B. S. Will accept trigonometry in place of solid geometry as part of required mathematics.
199. University of Wisconsin, Madison, Wis.  
 Requires 2 of Latin, German, or French.  
 Limits sum of physical geography and geology to 2.  
 If 4 units of vocational subjects are not offered, 1 optional unit may be offered from subjects not listed.
200. Beloit College, Beloit, Wis.  
 Requires 2 of one language: Latin, Greek, German, or French.  
 Plane and solid geometry combined valued as 1.
201. Carroll College, Waukesha, Wis.  
 Requires 2 of one language: Latin, Greek, German, or French.  
 B. S. Specifies physics.  
 Occasionally accepts 2 of vocational subjects.
202. Lawrence College, Appleton, Wis.  
 Requires 2 of one language: Latin, Greek, German, French, or Spanish.
203. Ripon College, Ripon, Wis.  
 Requires 2 of one language: Latin, Greek, German, or French.  
 Requires 2 of English, but prefers 3.  
 Requires plane and solid geometry, counted together as 1 unit.
204. University of Wyoming, Laramie, Wyo.  
 Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
 Accepts pedagogy 1, psychology 4.

## Chapter III.

### COLLEGES OF ENGINEERING.

Of the 85 colleges of engineering in this chapter, 46 are under State control.

Table 3 is a summary showing the distribution of these colleges according to the number of units that they prescribe in each subject, and also according to the number that they accept in each subject.

Table 4, and the supplementary notes following it, give the entrance requirements of each college.

TABLE 3.—*Distribution of 85 colleges of engineering, PART I.—According to the number of units prescribed for admission for September, 1912.*

Number of units.	According to total units required.	According to prescribed units.							According to elective units.
		Eng-lish.	Mathe-matics.	Foreign lan-guage.	Natural science.	His-tory and civics. <sup>1</sup>	Draw-ing.	Total pre-scribed.	
1	2	3	4	5	6	7	8	9	10
0.....		1	1	17	22	22	78		4
1.....				2	38	49	3		1
2.....		4	2	40	21	11	2		6
3.....		74	51	7	1			2	8
4.....		5	15	11					9
5.....			2						2
6.....				2					10
7.....									6
8.....									12
9.....									2
10.....									8
11.....									4
12.....									2
13.....									1
14.....	27							2	3
15.....	5								2
16.....	50								14
Average.....	14.7	3.0	3.1	2.0	1.0	0.9	0.1	10.1	4.6

<sup>1</sup> Cornell College also prescribes economics.

COLLEGE ENTRANCE REQUIREMENTS.

TABLE 3.—Distribution of 85 colleges of engineering, PART II.—According to maximum number of units accepted in each subject for admission for September, 1912.

Number of units.	Number of colleges, distributed according to maximum units accepted in each subject.																														
	Foreign language.				Natural science.							Social science.			Vocational subjects.				Free margin for any subject from approved high school.												
	English.	Mathematics.	Latin.		Greek.	German.	French.	Spanish.	Physics.	Chemistry.	Physiography.	Geology.	Astronomy.	Botany.	Zoology.	Biology.	Physiology.	General Introductory.		In all natural science.	History and civics.	Economics.	In all social science.	Drawing.	Shopwork.	Household economics.	Agriculture.	Business.	In all vocational subjects.	Musical.	
1	11	12	18	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

More than 4 counted as 4.

More than 10 counted as 10.



Note.—In addition to the colleges that will give credit as indicated above, the following subjects will be considered by the number of colleges indicated:

Spanish.....	2	Drawing.....	3
Geology.....	3	Shopwork.....	3
Astronomy.....	3	Household economics.....	5
Biology.....	2	Agriculture.....	6
Physiology.....	2	Business.....	4
General introductory science.....	5	Vocational subjects.....	6
Economics.....	2	Music.....	6

EXPLANATION OF TABLE 4.

<sup>z</sup>=subject is accepted and credit not limited, except as it is limited by the figure in the column headed "sum not to exceed."

<sup>c</sup>=acceptance will be considered.

<sup>l</sup>=the sum of subjects thus designated must not exceed the limit stated in supplementary notes.

<sup>s</sup>=particular subject or subjects specified as stated in supplementary notes.

<sup>\*</sup>=see supplementary notes.

The supplementary notes are arranged under the respective colleges. The colleges are arranged by States and numbered as in the table. The full name and location of each college is also given.

TABLE 4.—Colleges of engineering—Entrance requirements for September, 1912.  
PART I.—Prescribed and elective units.

1	Institutions.	Total units re- quired.	Prescribed units.							Total units prescribed.	Elective units.
			English.	Mathematics.	Foreign lan- guage. (De- tails in sup- plementary notes.)	Natural sci- ence.	History and civics.	Drawing.			
			3	4	5	6	7	8	9	10	
1	Alabama, University of.....	14	3	3	2 (or 4)	2	1	11	3		
2	Arizona, University of.....	15	3	3	2	1*	0	9	6		
3	Arizona, University of (mining).....	15	3	3	2	2*	0	10	5		
4	California, University of.....	15	2-4*	4	2-3*	2*	1*	2	15	0	
5	Leland Stanford Junior Univer- sity.....	15	1 1/2	0	0	0	0	14	13 1/2		
6	University of Southern California.....	15	2	3 1/2	2	2*	1*	2	12 1/2	2 1/2	
7	Colorado, University of.....	15	3	3	2	1*	2	11	4		
8	Colorado Agricultural College.....	15	3	3	0	2	2	10	5		
9	Colorado School of Mines.....	15	3	3	2	2*	2	12	3		
10	Colorado College.....	15	3	3	2	3*	2*	13	2		
11	Conn.—Sheffield Scientific School.....	15	3	4	4	1	1	13	2		
12	D. C.—George Washington Uni- versity.....	15	3	3 1/2	4	2*	0	12 1/2	2 1/2		
13	Georgia, University of.....	14	3	2 1/2	2	0	2	9 1/2	4 1/2		
14	Idaho, University of.....	15	3	3	2	1*	1	10	5*		
15	Illinois, University of.....	15	3	3	0	1*	0	7	8		
16	Armour Institute of Technology.....	15	3	3 1/2	2	2*	1	12 1/2	2 1/2		
17	James Millikin University.....	15	3	3	0	0	0	6	9		
18	Northwestern University.....	15	3	2 1/2	4	0	0	10	5 1/2		
19	Ind.—Purdue University.....	15	3	3	2	1	1	10	5		
20	University of Notre Dame.....	16	4*	3 1/2*	3*	2*	2*	15*	1*		
21	Rose Polytechnic Institute.....	15	3	3	2	0	1	9	6		
22	Iowa, State University of.....	16	3	1	2	0	1	9	6		
23	Iowa State College of Agriculture.....	15	3	3	2	1	1	11	4		
24	Cornell College.....	15	3	3	2	1 1/2	2 1/2	11 1/2	3 1/2		
25	Kansas, University of.....	15	3	3	3	1*	0	11	4		
26	Kentucky, State University of.....	15	3	3	2	1	1	10	5		
27	Louisiana State University.....	14	3	2 1/2	1	0	1	7 1/2	6 1/2		
28	Louisiana, Tulane University of.....	14 1/2	3	3 (or 4)*	2 (or 3)*	2	0 (or 2)*	12	2 1/2		
29	Maine, University of.....	14	3	3	2 (or 4)	1	1	10	4		
30	Massachusetts Institute of Tech- nology.....	14	3	4	4	1*	1*	12	2		
31	Tufts College.....	14	3	3	2	0	1	9	5		
32	Worcester Polytechnic Institute.....	14	3	3	4	1*	1	12	2		
33	Michigan, University of.....	15	3	2	2	1*	1	10	5*		
34	Michigan Agricultural College.....	15	2	3	0	1*	0	7	8		
35	Minnesota, University of.....	15	3	3	0	1*	0	7	8*		
36	Missouri School of Mines.....	15	3	3	0	0	0	6	9		
37	Washington University.....	15	3	3	2	1*	1	10	5		
38	Montana, University of.....	15	4	3	2	1	1	11	4		
39	Montana State College of Agri- culture.....	15	4	3	2	1	1	11	4		
40	Montana State School of Mines.....	15	2	3	2	1	1*	9	6		
41	Nebraska, University of.....	15	2	4	0	2*	1*	9	6		
42	Nevada, State University of.....	15	2	4	0	2*	1*	9	6		
43	New Hampshire College of Agri- culture.....	15	4	2 1/2*	2	1	1*	10 1/2	4 1/2		

\*Cornell College prescribes 2 units of history and other social science, including civics and economics.

TABLE 4.—Colleges of engineering—Entrance requirements for September, 1912.  
PART I—Prescribed and elective units—Continued.

Institutions.	Total units re- quired.	Prescribed units.							Total units prescribed.	Elective units.
		English.	Mathematics.	Foreign lan- guage. (De- scribed in par- ticulars.)	Natural sci- ence.	History and civics.	Drawing.			
		3	4	5	6	7	8			
43 New Jersey—Princeton University	14*	3	3½	4	1*	0		11½	2½	
44 New Jersey—Stevens Institute	14	3	4	2	2*	1*		12	2	
45 New Mexico College of Agriculture	15	0	3	0	0	0		3	12	
46 N. Y.—Polytechnic Institute of Brooklyn, New York	15	3	3½	3	2*	1½		13	2	
47 Columbia University	14½	3	3½	2	2*	0	1	11½	3	
48 Cornell University	15	3	4	3	0	0		11	4	
49 Fordham University	14	3	3	6	0	0		14	0	
50 Manhattan College	16	3	3½	6	2	1*		16	0	
51 New York University	15	3	3½		1*	0		10½	4½	
52 Rensselaer Polytechnic	14	3	3	3-5	1*	1		10	4	
53 University of Rochester	14	3	4	2	2*	1		14	0	
54 Syracuse University	15	3	3½	3 (or 4)	1*	0		10½	4½	
55 Union University	14	3	3½	2	1½*	1*		11	3	
56 North Carolina, University of	14	3	3	2	1	2*		11	3	
57 North Dakota, University of	15	3	3	2	1*	1*		10	5	
58 North Dakota Agricultural College	15	3	0	0	0	0		3	12*	
59 Ohio State University	15	3	3	4	1*	1		12	3	
60 Case School of Applied Science	14	3	3	2	2*	0		10	4	
61 University of Cincinnati	16	3	2½	0	0	1		6½	9½	
62 Oklahoma, University of	15	3	3	2	1*	1		10½	4½	
63 Oregon, University of	15	3	3	2	1*	1		10	5	
64 Pennsylvania State College	14	3	3	2	2	1		11	3	
65 Lafayette College	14	3	3½*	2	2*	2*		12½	1½	
66 Lehigh University	14	3	4	2	0	1		10	4	
67 Swarthmore College	14½	3	2½	4 (or 5)	0	2		11½	3	
68 Temple University	15	3	2½*	2	1*	1		6½	5½	
69 University of Pennsylvania	14½	3	3	2	1*	1		10	5	
70 University of Pittsburgh	15	3	3	2	1*	1		10	5	
71 Rhode Island State College	14	3	3	1	1*	1		9	5	
72 South Dakota, University of	15	3	2	0	0	0		5	10	
73 Tennessee, University of	14	3	3	0	2	0		8	6	
74 University of the South	14	3	3½	4	0	1		11½	2½	
75 Vanderbilt University	14	3	3	4	1	1		12	2	
76 Texas, University of	14	3	2½	3 (or 4)	0	2		10½	3½	
77 Utah, University of	15	3	3½	0 (or 2)	1*	1		8½	6½	
78 Vermont, University of	14½	3	3	2	1*	1		10	4½	
79 Virginia, University of	14	3	3½	0	0	0		7½	6½	
80 Washington and Lee University	14	3	3	0	0	1		7	7	
81 Washington, University of	15	4*	3	2	2*	1		12	3	
82 Washington, State College of	16	3	3	0	1*	1*		8	7	
83 West Virginia University	14	3	3*	2	2*	1		12	2	
84 Wisconsin, University of	14	2	2½* (or 3)	2 (or 4)	1*	0		7½	6½	
85 Wyoming, University of	15	3	3	2	1*	0		9	6	





COLLEGE ENTRANCE REQUIREMENTS.

TABLE 4.—Colleges of engineering—Entrance requirements for September, 1912, PART II—Maximum number of units accepted in each subject—Contd.

Institutions.	Foreign languages.							Natural sciences.								Social sciences.					Vocational subjects.						Other subjects high schools approved				
	English	Mathematics	Latin	Greek	German	French	Spanish	Sum not to exceed	Physics	Chemistry	Physiology	General Industry	Sum not to exceed	History and civics	Economics	Sum not to exceed	Drawing	Shopwork	Household economics	Agriculture	Business	Sum not to exceed	Music								
1. ✓	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
Harvard University.....	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Massachusetts Institute of Technology.....	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
University of Pennsylvania.....	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
University of Pittsburgh.....	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
State Normal College, South Dakota.....	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
University of Tennessee.....	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
University of the South.....	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Vanderbilt University.....	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
University of Utah.....	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
University of Virginia.....	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
University of Washington and Lee University.....	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
University of Wisconsin.....	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
University of Maryland.....	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
University of North Carolina.....	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
University of Wyoming.....	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

## SUPPLEMENTARY NOTES.

1. University of Alabama, University, Ala.  
Requires 2 of German or French, or Latin 4.
2. University of Arizona, Tucson, Ariz.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
Specifies physics for civil, mechanical, and electrical engineering, and for course in metallurgy.  
Specifies physics and chemistry for mining engineering.
3. University of California, Berkeley, Cal.  
Requires 6 of English and foreign language combined.  
Specifies physics and chemistry.  
Specifies United States history and civics.  
Specifies free-hand drawing 1 and geometrical drawing 1.
4. Leland Stanford Junior University, Stanford University, Cal.  
Second method: "Undergraduate standing, without further tests, is granted to graduates of approved schools who have completed a regular four years' course, amounting to not less than 15 entrance units, and who are fully recommended to the University."
5. University of Southern California, Los Angeles, Cal.  
Requires 2 of German, French, or Spanish.  
Specifies physics and chemistry.  
Specifies United States history and civics.  
Specifies free-hand drawing 1 and mechanical drawing 1.  
Consideration given to subjects not mentioned.
6. University of Colorado, Boulder, Colo.  
Requires 2 of foreign language.  
Specifies physics.  
Limits sum of economics and vocational subjects to 3.  
Substitutes may be allowed for some of the prescribed work in case 15 units of accepted work is offered.
7. Colorado Agricultural College, Fort Collins, Colo.  
Specifies physics and chemistry.  
Additional credit and additional subjects will be considered.
8. School of Mines, Golden, Colo.  
Requires 2 of foreign language.  
Specifies physics and chemistry.
9. Colorado College, Colorado Springs, Colo.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
Specifies chemistry and physics as part of science requirement.  
Specifies United States history and civics and either English or ancient history.
10. Sheffield Scientific School, Yale University, New Haven, Conn.  
Requires 2 of each of two of the following: Latin, German, or French.
11. George Washington University, Washington, D. C.  
Requires 4 of German or French, or German 2 and French 2.  
Specifies physics and chemistry.
12. University of Georgia, Athens, Ga.  
Requires 2 of German or French.
13. University of Idaho, Moscow, Idaho.  
Requires 2 of one language: Latin, German, French, or Spanish.  
Specifies physics.  
Requires 1 additional unit from English, mathematics, foreign language, science, and history.

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14. University of Illinois, Urbana, Ill.  
Specifies physics.  
Limits sum of shopwork, household economics, agriculture, bookkeeping 1, and business law  $\frac{1}{2}$  to 3. Drawing 1 and commercial geography  $\frac{1}{2}$  may be presented in addition.
15. Armour Institute of Technology, Chicago, Ill.  
Requires 2 of German, French, or Spanish.  
Specifies physics and chemistry.  
Specifies mechanical drawing 1.  
Accepts mechanical drawing 1 and free-hand drawing 2 $\frac{1}{2}$ .
16. James Millikin University, Decatur, Ill.  
Does not require foreign language.
17. Northwestern University, Evanston, Ill.  
Requires Latin 4.  
Accepts 2 of vocational subjects and other work not specified, but commercial geography  $\frac{1}{2}$  and commercial law  $\frac{1}{2}$  may be presented in addition.
18. Purdue University, Lafayette, Ind.  
Requires 2 of Latin, German, or French.
19. Notre Dame University, Notre Dame, Ind.  
Requires 3 of German or French.  
Specifies physics and chemistry.  
Specifies drawing  $\frac{1}{2}$ .  
Substitutes for some of the prescribed work will be accepted from the subjects which are given as receiving credit, and the elective unit may be chosen from any work that an approved school counts for its own graduation.
20. Rose Polytechnic Institute, Terre Haute, Ind.  
Requires 2 of German or French.  
Accepts economics 2 and social science 2, and recommends these subjects as electives.  
Subjects not tabulated as accepted will be considered.
21. State University of Iowa, Iowa City, Iowa.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
Limits sum of natural science and agriculture to 4 $\frac{1}{2}$ .  
Limits sum of advanced arithmetic  $\frac{1}{2}$ , double-entry bookkeeping 1, commercial geography  $\frac{1}{2}$ , commercial law  $\frac{1}{2}$ , and industrial history  $\frac{1}{2}$  to 2.  
Limits sum of drawing 1, shopwork 1, household economics 1, and stenography 1 to 2.
22. Iowa State College of Agriculture and Mechanic Arts, Ames, Iowa.  
Same requirements as the State University of Iowa.
23. Cornell College, Mount Vernon, Iowa.  
Requires 2 of one language: Latin, Greek, German, or French.  
Requires 2 of history and other social science, including civics  $\frac{1}{2}$  and economics  $\frac{1}{2}$ .
24. University of Kansas, Lawrence, Kans.  
Requires 3 of foreign language, including 2 of Latin, German, or French.  
Specifies physics.  
Requires also drawing 1.
25. State University of Kentucky, Lexington, Ky.  
Requires 2 of foreign language.
26. Louisiana State University, Baton Rouge, La.  
Requires 1 of German, French, or Spanish.
27. Tulane University of Louisiana, New Orleans, La.  
Requires 2 of one language: Latin, German, French, or Spanish.  
Requires 2 of history, or a third unit in the foreign language presented with a fourth unit of mathematics.



28. University of Maine, Orono, Me.  
Requires 2 of German or French, or Latin 4.  
Well-prepared students may receive credit for any 4 elective units well done.
29. Massachusetts Institute of Technology, Boston, Mass.  
Requires German 2 and French 2.  
Specifies physics.  
Specifies United States history and civics 1 or ancient history 1.
30. Tufts College, Tufts College, Mass.  
Requires 2 of one language: Latin, Greek, German, or French.
31. Worcester Polytechnic Institute, Worcester, Mass.  
Requires 2 of each of two languages: Latin, German, French, or Spanish. Either German or French must be included.  
Specifies physics or chemistry.
32. University of Michigan, Ann Arbor, Mich.  
Requires 2 of one language: Latin, German, French, or Spanish.  
Specifies physics.  
Of the 5 elective units, 1½ or 2 must be selected from chemistry 1, trigonometry ½, 1 or 2 of German, French, or Latin, manual training 1, and not more than 2 may be offered of any vocational subject.
33. Michigan Agricultural College, East Lansing, Mich.  
Specifies physics.  
Accepts freehand drawing 1 and mechanical drawing and shopwork 2.
34. University of Minnesota, Minneapolis, Minn.  
Does not require foreign language.  
Specifies chemistry.  
The 8 elective units must include a minor of 2 units in foreign language, or in history and social science, or in natural science.  
To form a language minor the 2 units must be in one language.  
To form a minor in history and social science 2 units may be chosen from the subjects given under the University of Minnesota in the chapter on colleges of liberal arts.  
The required chemistry may be counted as a part of a minor in natural science.  
Freehand and mechanical drawing are each limited to 1, and not less than 2 of "stenography and typewriting" will be accepted if that subject is offered.
35. Missouri School of Mines, University of Missouri, Columbia, Mo.  
Does not require foreign language.  
Accepts 1 of trigonometry.
36. Washington University, St. Louis, Mo.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
Specifies physics or chemistry.  
Limits sum of civics and economics to 1.
37. University of Montana, Missoula, Mont.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish.
38. Montana State College of Agriculture and Mechanic Arts, Bozeman, Mont.  
Same entrance requirements as the University of Montana.
39. Montana State School of Mines, Butte, Mont.  
Same entrance requirements as the University of Montana.
40. University of Nebraska, Lincoln, Nebr.  
Requires 2 of foreign language.  
Specifies European history.  
Additional credit may be given to vocational subjects if a high school shows itself capable of offering more.
41. State University of Nevada, Reno, Nev.  
Specifies an advanced science as part of science requirement.  
Specifies United States history and civics.

42. New Hampshire College of Agriculture and Mechanic Arts, Durham, N. H.  
Requires 2 of German or French.  
Specifies United States history and civics, or ancient history.  
Accepts also Italian, Chinese, and Swedish.  
Required mathematics consists of algebra 1 and plane and solid geometry  $\frac{1}{2}$ .
43. Princeton University, Princeton, N. J.  
Requires 2 of each of two languages: Latin, German, and French.  
Specifies physics or chemistry.  
History receives only half as much credit as an equal amount of other electives, and consequently when history 1 is offered,  $15\frac{1}{2}$  units are required, and when history 2 is offered, 16 units are required.
44. Stevens Institute of Technology, Hoboken, N. J.  
Requires 2 of one language: Latin, Greek, German, French, Spanish, or Italian.  
The requirement in mathematics consists of algebra  $1\frac{1}{2}$ , plane and solid geometry  $1\frac{1}{2}$ , trigonometry  $\frac{1}{2}$ , and a rigorous examination in arithmetic, requiring special preparation.  
Specifies physics and chemistry.  
Specifies United States history and civics.
45. New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex.  
Accepts any 15 units that an approved school counts for graduation, provided 3 units of mathematics (algebra and plane and solid geometry) are included.
46. Polytechnic Institute of Brooklyn, Brooklyn, N. Y.  
Requires 3 of foreign language, including 2 of German or French.  
Specifies physics and chemistry.
47. Columbia University, New York City.  
Requires 2 of German or French.  
Specifies physics and chemistry.  
Requires also drawing 1.
48. Cornell University, Ithaca, N. Y.  
Requires 3 of German or French.
49. Fordham University, New York City, N. Y.  
Requires Latin 4, and 2 of German, French, or Spanish.
50. Manhattan College, New York City, N. Y.  
Requires (a) Latin 4 and Greek 2; or (b) French 4 and German 2.  
Specifies United States history and civics as part of the history requirement.
51. New York University, New York City, N. Y.  
Requires (a) 3 of German or French; or (b) French 2 and German 2; or (c) 2 of French or German, with Latin 3 or Spanish 2.  
Specifies physics.
52. Rensselaer Polytechnic Institute, Troy, N. Y.  
Requires 2 of foreign language.  
Specifies physics or chemistry.
53. University of Rochester, Rochester, N. Y.  
Requires German 2 and French 2.  
Specifies physics and chemistry.
54. Syracuse University, Syracuse, N. Y.  
Requires (a) 3 of German, French, or Spanish; or (b) Latin 2, and 2 of German, French, or Spanish.  
Specifies physics.
55. Union University, Schenectady, N. Y.  
Requires 2 of German or French.  
Specifies physics 1 and physiology  $\frac{1}{2}$ .  
Specifies United States history and civics 1.  
A six-year course conferring both Ph. B. and B. S. is offered, requiring 18 units for graduation.

56. University of North Carolina, Chapel Hill, N. C.  
Requires 2 of German or French.  
Specifies United States history and civics, and either ancient or English history.
57. University of North Dakota, Grand Forks, N. Dak.  
Requires 2 of one language: Latin, Greek, German, French, Spanish, or Scandinavian.  
Specifies physics.  
Specifies ancient or general history.  
Limits sum of drawing, shopwork, household economics, and business to 4.
58. North Dakota Agricultural College, Agricultural College, N. Dak.  
Does not require foreign language.  
The elective units must include one academic major of 3 units and one academic minor of 2 units.
59. Ohio State University, Columbus, Ohio.  
Requires 4 of one language or 2 of each of two of the following: Latin, Greek, German, French, or Spanish.  
Specifies physics.
60. Case School of Applied Science, Cleveland, Ohio.  
Requires 2 of German, French, or Spanish; or German 1 and French 1.  
Specifies physics and chemistry.
61. University of Cincinnati, Cincinnati, Ohio.  
Does not require foreign language.
62. University of Oklahoma, Norman, Okla.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish, but specifies German for chemical engineering.  
Specifies physics.  
Requires also free-hand drawing 1.
63. University of Oregon, Eugene, Oreg.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
Specifies physics.
64. Pennsylvania State College, State College, Pa.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish.
65. Lafayette College, Easton, Pa.  
Requires 2 of German or French.  
Specifies physics or chemistry 1, and physiography 1. If physiography is taken in the elementary school, another science must be taken in high school.  
Specifies United States history and civics and ancient, medieval, and modern history. If United States history is taken in the elementary school, other history must be taken in its place in the high school.  
Requires also a review of algebra.
66. Lehigh University, South Bethlehem, Pa.  
Requires 2 of German or French.
67. Swarthmore College, Swarthmore, Pa.  
Requires 4 of Latin, German, or French or two languages selected from the following: Latin 2, Greek 3, German 2, and French 2.  
A graduate of an approved school may offer substitutes for some of the optional subjects.  
The college confers only the A. B. degree.
68. Temple University, Philadelphia, Pa.  
Requires 2 of German, French, or Spanish.  
Required mathematics consists of algebra 1 and plane and solid geometry 1.  
Specifies physics.
69. University of Pennsylvania, Philadelphia, Pa.  
Requires 2 of German or French.  
Specifies physics 1.

70. University of Pittsburgh, Pittsburgh, Pa.  
Requires 2 of German or French, or German 1 and French 1.  
Specifies physics.
71. Rhode Island College, Kingston, R. I.  
Requires 1 of German or French.  
Specifies physics.
72. University of South Dakota, Vermilion, S. Dak.  
Does not require foreign language.  
Vocational subjects given credit on their merits.
73. University of Tennessee, Knoxville, Tenn.  
Does not require foreign language.
74. University of the South, Sewanee, Tenn.  
Requires 2 of each of two of the following languages: Latin, Greek, German, French, and Spanish.
75. Vanderbilt University, Nashville, Tenn.  
Requires 4 of one foreign language or 2 of each of two of the following: Latin, Greek, German, French, and Spanish.
76. University of Texas, Austin, Tex.  
Requires 3 of one language, or 2 of each of two of the following: Latin, Greek, German, French, and Spanish.
77. University of Utah, Salt Lake City, Utah.  
Does not require foreign language, except for chemical engineering, for which German 2 is required.  
Specifies physics or chemistry.  
Accepts psychology 4, pedagogy 1, and Bible 1.  
Not more than 2 of agriculture are accepted unless accompanied by at least 1 of allied science.
78. University of Vermont, Burlington, Vt.  
Requires 2 of one language: Latin, Greek, German, or French.  
Specifies physics or chemistry.  
Accepts agriculture from agricultural high schools only.
79. University of Virginia, Charlottesville, Va.  
Does not require foreign language.
80. Washington and Lee University, Lexington, Va.  
Does not require foreign language.  
Accepts 34 of mathematics, but the presentation of trigonometry involves extra work in college.
81. University of Washington, Seattle, Wash.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
Specifies physics 1 and chemistry 1.  
If 3 units of foreign language are presented, the English requirement is reduced to 3 units.
82. State College of Washington, Pullman, Wash.  
Does not require foreign language.  
Specifies physics.  
Specifies United States history and civics.  
Limits sum of English, history and other social sciences to 8.  
Limits sum of mathematics and natural science to 8.
83. West Virginia University, Morgantown, W. Va.  
Requires 2 of one modern language: German, French, or Spanish.  
Specifies physics and chemistry.  
Requires also freehand drawing 1.  
Will accept trigonometry in place of solid geometry as part of required mathematics.

84. University of Wisconsin, Madison, Wis.  
Requires Latin 4 or 2 of German or French.  
• Specifies physics.  
Required mathematics consists of algebra 1½ and plane and solid geometry, counting either as 1 or 1½.  
If 4 units of vocational subjects are not offered, 1 optional unit may be offered from subjects not listed.
85. University of Wyoming, Laramie, Wyo.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish.  
Specifies physics.  
Accepts pedagogy 1, psychology ½.

## Chapter IV.

### COLLEGES OF AGRICULTURE.

Of the 31 colleges of agriculture in this chapter, all except the University of Georgia are coeducational, and all except Syracuse University are under State support and control.

Table 5 is a summary showing the distribution of these colleges according to the number of units that they prescribe in each subject and also according to the number that they accept in each subject.

Table 6 and the supplementary notes following it give the entrance requirements of each college.

TABLE 5.—*Distribution of 31 colleges of agriculture, PART I—According to the number of units prescribed for admission for September, 1912.*

Number of units.	According to total units required.	According to prescribed units.							According to elective units.
		Eng-lish.	Math-emat-ics.	For-eign lan-guage.	Natu-ral science.	His-tory and civics.	Draw-ing.	Total units pre-scribed.	
1	2	3	4	5	6	7	8	9	10
0		1	2	14	9	9	30	1	
1			1	1	14	19	1		
2		4	11	13	7	2			
3		23	4	2	1			1	1
4		3		1				1	
5									2
6									6
7								1	4
8								1	5
9								2	2
10								2	2
11								2	3
12								3	3
13								3	
14		9						0	
15		1						6	
16		21						3	
17									1
18									
19									
20									
Average	14.7	2.9	2.2	1.2	1.0	0.8	-0.0	8.1	6.6



EXPLANATION OF TABLE 6.

x=subject is accepted and credit not limited, except as it is limited by the figure in the column headed "Sum not to exceed."

c=acceptance will be considered.

l=the sum of subjects thus designated must not exceed the limit stated in supplementary notes.

\*=particular subject or subjects specified as stated in supplementary notes.

\*\*=see supplementary notes.

The supplementary notes are arranged under the respective colleges. The colleges are arranged by States and numbered as in the table. The full name and location of each college is also given.

TABLE 6.—Colleges of agriculture—Entrance requirements for September, 1912, PART I—Prescribed and elective units.

Institutions.	Total units required.	Prescribed units.						Total units prescribed.	Elective units.
		English.	Mathematics.	Foreign language (details in supplementary notes).	Natural science.	History and civics.	Drawing.		
1	2	3	4	5	6	7	8	9	10
1 Arizona, University of.....	15	3	2½	0	1*	1	.....	7½	7½
2 California, University of.....	15	3	2½	4	1*	1*	.....	10	5
3 Colorado Agricultural College.....	15	3	2	0	2*	2	.....	9	6
4 Georgia, University of.....	14	3	2½	2	0	2	.....	9½	4½
5 Idaho, University of.....	15	3	2½	2	1	1	.....	9	6
6 Illinois, University of.....	15	3	2½	0	2	0	.....	7½	7½
7 Indiana, Purdue University.....	15	3	2½	2	1	1	.....	9½	5½
8 Iowa State College.....	15	3	2½	2	0	1	.....	8½	6½
9 Kentucky, State University of.....	15	3	2½	2	1	1	.....	9½	5½
10 Louisiana State University.....	14	3	2½	0	0	1	.....	6½	7½
11 Maine, University of.....	14	3	2½	2	1	1	.....	9½	4½
12 Massachusetts Agricultural College.....	14	3	2½	(or 4) 2	0	1½	.....	9	5*
13 Michigan Agricultural College.....	15	3	3	0	1*	0	.....	7	8
14 Minnesota, University of.....	15	4*	3*	0	1*	0	.....	8	7*
15 Missouri, University of.....	15	3	1	0	0	0	.....	4	11
16 Montana College of Agriculture.....	15	4	2	2	1	1	.....	10	5
17 Nebraska, University of.....	15	2	2*	(or 2) 3	1	1*	.....	9	6
18 Nevada, University of.....	15	2	2	0	2	1*	.....	7	8
19 New Hampshire College of Agriculture.....	15	4	2	2	1	1	.....	10	5
20 New Mexico College of Agriculture.....	15	0	0	0	0	0	.....	0	15
21 New York, Cornell University.....	15	3	2	3	0	1	.....	9	6
22 Syracuse University.....	15	3	2½	0	1	1	.....	9½	5½
23 North Dakota Agricultural College.....	15	3	0	0	0	0	.....	3	12*
24 Pennsylvania State College.....	14	3	3	2	2	1	.....	11	3
25 Rhode Island State College.....	14	3	2½	1	1	1	.....	8½	5½
26 Tennessee, University of.....	14	3	2	0	0	0	.....	8	6
27 Vermont, University of.....	14½	3	2½	2	1*	1	.....	9½	5
28 Washington, State College of.....	15	3	2½	0	1*	1*	.....	8½	6½
29 West Virginia University.....	14	3	2	2	1	1	.....	9	5
30 Wisconsin, University of.....	14	2	2	2	0	0	.....	6	8
31 Wyoming, University of.....	15	3	3	0	2*	0	.....	8	7







## SUPPLEMENTARY NOTES.

1. University of Arizona, Tucson, Ariz.  
Does not require foreign language.  
Specifies physics, chemistry, or biology.
2. University of California, Berkeley, Cal.  
Requires 4 of foreign language.  
Specifies an advanced science with laboratory work.  
Specifies United States history and civics.  
Limits sum of economics, shopwork, household economics, agriculture, business, and music to 3.
3. Colorado Agricultural College, Fort Collins, Colo.  
Does not require foreign language.  
Specifies physics and chemistry.  
Additional credit and additional subjects will be considered.
4. University of Georgia, Athens, Ga.  
Requires 2 of one language: Latin, Greek, German, French, Spanish, or Italian.
5. University of Idaho, Moscow, Idaho.  
Requires 2 of one language: Latin, German, French, or Spanish.  
Requires 2 additional units from the following: English, mathematics, foreign language, science, and history.
6. University of Illinois, Urbana, Ill.  
Does not require foreign language.  
Limits sum of shopwork, household economics, agriculture, bookkeeping 1 and business law  $\frac{1}{2}$  to 3. Drawing 1 and commercial geography  $\frac{1}{2}$  may be presented in addition.
7. Purdue University, Lafayette, Ind.  
Requires 2 of Latin, German, or French.
8. Iowa State College of Agriculture and Mechanic Arts, Ames, Iowa.  
Requires 2 of Latin, German, French, or Spanish; or 1 of each of two of the following: Latin, German, and French.  
Limits sum of natural science and agriculture to 4 $\frac{1}{2}$ .  
Limits sum of advanced arithmetic  $\frac{1}{2}$ , double-entry bookkeeping 1, commercial geography  $\frac{1}{2}$ , commercial law  $\frac{1}{2}$ , and industrial history  $\frac{1}{2}$  to 2.  
Limits sum of drawing 1, shopwork 1, household economics 1, and stenography 1 to 2.
9. State University of Kentucky, Lexington, Ky.  
Requires 2 of foreign language.  
Accepts surveying  $\frac{1}{2}$  and six months' experience from holder of first-class certificate 1.
10. Louisiana State University and Agricultural and Mechanical College, Baton Rouge, La.  
Does not require foreign language.
11. University of Maine, Orono, Me.  
Requires 2 of German or French or 4 of Latin.  
Well-prepared students may receive credit for any 4 $\frac{1}{2}$  elective units well done.
12. Massachusetts Agricultural College, Amherst, Mass.  
Requires 2 of German or French.  
Specifies United States history and civics  $\frac{1}{2}$  as part of history requirement, but after 1912 will require only 1 instead of 1 $\frac{1}{2}$  of history, and will not specify United States history and civics, thereby increasing the elective units from 5 to 5 $\frac{1}{2}$  and permitting 8 $\frac{1}{2}$  of foreign language.

13. Michigan Agricultural College, East Lansing, Mich.  
Does not require foreign language.  
Specifies physics.  
Accepts freehand drawing 1 and mechanical drawing and shopwork 2.
14. University of Minnesota, Minneapolis, Minn.  
Does not require foreign language.  
English requirement reduced to 3 when 4 of one foreign language is offered.  
Specifies physics.  
The 2 elective units must include a minor of 2 units in foreign language, or in history and social science, or in natural science.  
To form a language minor, the 2 units must be in one language.  
To form a minor in history and social science, 2 units may be chosen from the subjects given under the University of Minnesota, in the chapter on colleges of liberal arts.  
The required physics may be counted as a part of a minor in natural science.  
The course in home economics requires only 2 of mathematics in case a major of 3 units is presented in foreign language, or in history and social science, or in natural science.
15. University of Missouri, Columbia, Mo.  
Does not require foreign language.
16. Montana College of Agriculture and Mechanic Arts, Bozeman, Mont.  
Requires 2 of Latin, German, or French.
17. University of Nebraska, Lincoln, Nebr.  
Requires 3 of foreign language, unless 3 of mathematics is offered, in which case only 2 of foreign language is required.  
Specifies European history.  
Additional credit may be given to vocational subjects if a high school shows itself capable of offering more.
18. University of Nevada, Reno, Nev.  
Foreign language not required until 1914.  
Specifies United States history and civics.
19. New Hampshire College of Agriculture and Mechanic Arts, Durham, N. H.  
Requires 2 of German or French.
20. New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex.  
Accepts any 15 units recommended by an approved high school, including not more than 6 units of vocational work.
21. Cornell University, Ithaca, N. Y.  
Requires 3 of German or French.
22. Syracuse University, Syracuse, N. Y.  
Does not require foreign language.  
Requires drawing.
23. North Dakota Agricultural College, Agricultural College, N. Dak.  
Does not require foreign language.  
The elective units must include one academic major of 3 units and one academic minor of 2 units.
24. Pennsylvania State College, State College, Pa.  
Requires 2 of one language: Latin, Greek, German, French, or Spanish.
25. Rhode Island State College, Kingston, R. I.  
Requires 1 of German or French.  
Specifies physics.
26. University of Tennessee, Knoxville, Tenn.  
Does not require foreign language.

27. University of Vermont, Burlington, Vt.  
Requires 2 of one language: Latin, Greek, German, or French.  
Specifies physics or chemistry or botany.  
Accepts agriculture from agricultural high schools only.
28. State College of Washington, Pullman, Wash.  
Does not require foreign language.  
Specifies physics 1 and botany or zoology 1.  
Specifies United States history and civics.  
Limits sum of English, history, and other social sciences to 8.  
Limits sum of mathematics and natural sciences to 8.
29. West Virginia University, Morgantown, W. Va.  
Requires 2 of one language: Latin, German, French, or Spanish.
30. University of Wisconsin, Madison, Wis.  
Requires 2 of Latin, German, or French.  
If 4 units of vocational subjects are not offered, 1 optional unit may be offered from subjects not listed.
31. University of Wyoming, Laramie, Wyo.  
Does not require foreign language.  
Specifies physics 1 and botany or zoology 1.  
Accepts pedagogy 1, psychology 1.

APPENDIX.  
ARTICULATION OF HIGH SCHOOL AND COLLEGE.

REPORT ADOPTED BY THE SECONDARY DEPARTMENT  
OF THE

NATIONAL EDUCATION ASSOCIATION,

SAN FRANCISCO, JULY 11, 1911.

*To the Secondary Department of the National Education Association.*

Your Committee upon the Articulation of High School and College herewith submits the following report:

At the meeting of this department in Boston, July 6, 1910, resolutions were introduced requesting colleges to discontinue the entrance requirement of two foreign languages and to recognize as electives all subjects well taught in the high school. These resolutions furthermore stated that the public high schools will be greatly hampered in their attempts to serve the best interests of boys and girls until such modification is made by the colleges. These resolutions were adopted with only one dissenting vote. In accordance with the spirit of these resolutions, your committee of nine was appointed to prepare a rational statement of the work that the high school should do. To carry out this purpose, the committee submits:

- A. Some preliminary considerations on the field and function of education in the high school.
- B. A working definition of a well-planned high-school course, and
- C. Reasons for the adoption of this definition as the basis of college admission.

**A. SOME PRELIMINARY CONSIDERATIONS ON THE FIELD AND FUNCTION OF EDUCATION IN THE HIGH SCHOOL.**

1. Dr. Henry S. Pritchett, in his annual report as president of the Carnegie Foundation, finds that American education, from elementary school to college, is suffering from the attempt to teach too many subjects to the same student at the same time. He believes that students taking the newer subjects should not be required to carry all the older subjects. He states emphatically that this is no argument against the enriched curriculum of the high school; but that, on the contrary, the high school must go on still further enriching its curriculum, and that it is the duty of the college to adjust itself to the high school thus broadened.

2. It is the duty of the tax-supported high school to give every student instruction carefully designed to return to society intelligent, able-bodied, and progressive citizens. To this end certain work should be included in the course of every student, whether or not he contemplates entering a higher institution. The responsibility of the high school in this matter cannot be delegated to the college, because there is no guaranty that the particular student will actually go to college.

3. It is coming to be recognized that in a democratic society the high school has a distinct function. The high-school period is the testing time, the time for trying out different powers, the time for forming life purposes. Consequently, the opportunity should be provided for the student to test his capacity in a fairly large number of relatively diverse kinds of work.

In the high school the boy or girl may very properly make a start along the line of his chosen vocation, but a final choice should not be forced upon him at the beginning of that career. If he makes a provisional choice early in the course, there should be ample opportunity for readjustment later in the high school. For this reason the requirement of four years of work in any particular subject as a condition of admission to a higher institution, unless that subject be one that may properly be required of all high-school students, is illogical and should, in the judgment of this committee, be immediately discontinued.

4. Not only is it the duty of the high school to lay the foundations of good citizenship and to help in the wise choice of a vocation, but it is equally important that the high school should make specific contribution to the efficiency of the individual along various broad lines. In our industrial democracy the development of individual aptitudes and unique gifts is quite as important as the development of the common elements of culture. Moreover, hard work is to be secured not by insistence upon uniformity of tastes and interests but by the encouragement of special effort along lines that appeal to the individual. Our education would gain in power and in virility if we made more of the dominant interest that each boy and girl has at the time. It would seem that some have come to believe the oft-repeated statement that the liberal should precede the vocational, but an organic conception of education demands the early introduction of training for individual usefulness, thereby blending the liberal and the vocational, for only then does the liberal receive its social significance and importance. In other words, the boy who pursues both the liberal and the vocational sees the relation of his own work to the work of others and to the welfare of society, whereas the liberal without the vocational leaves him a mere spectator in the theater of life, and the boxes in this theater are already overcrowded.

5. Mechanic arts, agriculture, or household science should be recognized as rational elements in the education of all boys and girls, and especially of those who have not as yet chosen their vocation. Under the authority of the traditional conception of the best preparation for a higher institution, many of our public high schools are to-day responsible for leading tens of thousands of boys and girls away from the pursuits for which they are adapted and in which they are needed to other pursuits for which they are not adapted and in which they are not needed. By means of exclusively bookish curricula false ideals of culture are developed. A chasm is created between the producers of material wealth and the distributors and consumers thereof.

The high school should in a real sense reflect the major industries of the community which supports it. The high school, as the local educational institution, should reveal to boys and girls the higher possibilities for more efficient service along the lines in which their own community is industrially organized.

Our traditional ideals of preparation for higher institutions are particularly incongruous with the actual needs and future responsibilities of girls. It would seem that such high-school work as is carefully designed to develop capacity for and interest in the proper management and conduct of a home should be regarded as of importance at least equal to that of any other work. We do not understand how society can properly continue to sanction for girls high-school curricula that disregard this fundamental need, even though such curricula are planned in response to the demand made by some of the colleges for women.

### B. A WORKING DEFINITION OF A WELL-PLANNED HIGH-SCHOOL COURSE.

In view of the foregoing considerations on the field and function of the high school, and to secure courses that shall be sound as integral parts of the larger educational process, your committee recommends the adoption of the following definition of a well-planned high-school course:

1. *The quantitative requirement should be 15 units.*

"A unit represents a year's study in any subject in a secondary school, constituting approximately a quarter of a full year's work." This definition "assumes that the length of the school year is from 36 to 40 weeks, that a period is from 40 to 60 minutes in length, and that the study is pursued for four or five periods per week." It further assumes that two hours of manual training or laboratory work is equivalent to one hour of classroom work.

We believe that 15 units is a better requirement than 16 units, because:

- (1) Quantity should be subordinated to quality.
- (2) Overstrain should be eliminated from the atmosphere of the school.
- (3) There should be one unit leeway, inasmuch as failure in one unit in one year should neither cost the student an extra year nor tempt the principal to permit such student to try to carry an extra unit the succeeding year.
- (4) Students of exceptional ability should be permitted to earn five units per year, thereby shortening the high-school period by one year.
- (5) Students poor in ability should be required to spend five years upon the course, attempting and performing three units each year, thereby diminishing failures and reducing excessive per capita cost of instruction.

Where 15 units is adopted as the required number, it would seem reasonable that physical training and chorus singing should not be counted toward the 15 units.

We further recommend that the practice of admitting students to college weighed down with conditions be disapproved on the ground that it is injurious to the student, to the high school from which he comes, and to the college to which he goes.

2. *Every high-school course should include at least three units of English, one unit of social science (including history), and one unit of natural science.*

(1) English.—There is at the present time almost unanimous agreement among high-school and college authorities that three or four units of English should be required of all. But the high school should be granted freedom to adapt the work to the real needs of its boys and girls. A course that is good in one high school may not be suited to the needs of another high school. Uniformity in this subject is utterly disastrous.

(2) Social science (including history).—High-school courses in history should always be taught so as to function in a better understanding of modern institutions, current events, and present movements.

Courses in economics should be encouraged. Economic discussions are paramount and ignorance of economic principles is appalling.

Every high-school student should be given a practical knowledge of affairs in his own community—political, industrial, and philanthropic; of the basic principles of State and national politics; and of movements for social reform and international peace.

Any high-school course that secures part or all of the above results should be given full recognition.

(3) Natural Science.—Where a unit of introductory science is taught, it should be recognized as fulfilling the minimum requirement in natural science.

In some schools an introductory course has been worked out based upon physics, with a minimum of principle and a maximum of application, as most advantageously meeting the needs of the pupils. In such a course there should be strict insistence upon accuracy and neatness in the presentation of notebooks and laboratory exercises.



Opportunity should be given for individual pupils to work along special lines and to make contributions out of their studies to the work of the class as a whole.

In other schools, introductory science is based largely upon biology. General biological material is used to explain human functions. Personal hygiene, including sex hygiene, is taught. Special attention is paid to problems of ventilation, sanitation, and the elimination of preventable diseases. Effort is made to secure intelligent cooperation with health authorities and to form public opinion regarding higher standards of health. A certain amount of physics and chemistry is also introduced in this course.

Either of these introductory courses would be placed intentionally in the first or second year of the high school.

(4) Physical Training.—Systematic physical training, consisting of exercises and team games, should be required of all students; but this work should not be regarded as counting toward the 15 required units.

3. *Every high-school course should include the completion of two majors of 3 units each and one minor of 2 units, and one of the majors should be English.*

Irrespective of the possibility that the student may go to a higher institution, it is desirable for him to do in the high school a certain amount of work of an advanced character. This provision also makes it possible for a part of the work in college to be a continuation of work done in the high school, thereby preserving continuity in the educational process.

We recommend that the following be recognized as majors:

- (a) Three units of English. (Required of all.)
- (b) Three units of one foreign language. (Latin, German, French, or Spanish.)
- (c) Three units of mathematics. (To include elementary algebra and plane geometry, and selections from plane trigonometry, solid geometry, intermediate algebra, and advanced algebra.)
- (d) Three units of social science. (To include selections from history, civics, economics, municipal affairs, and history of industry or commerce.)
- (e) Three units of natural science. (To include selections from an introductory science course, physics, chemistry, astronomy, agriculture, physiography, elementary biology, advanced physiology, botany, and zoology.)

4. *The requirement in mathematics and in foreign languages should not exceed 2 units of mathematics and 2 units of one language other than English.*

For admission to engineering courses the requirement of a major in mathematics appears reasonable.

For admission to a distinctively literary or classical course the requirement of a major in one foreign language appears reasonable.

For other students a requirement of more than 2 units of mathematics and 2 units of one language, when not in accord with the dominant interests and aptitudes of the student, appears excessive.

5. *Of the total 15 units, not less than 11 units should consist of English, foreign language, mathematics, social science (including history), natural science, or other work conducted by recitations and home study.*

*The other 4 units should be left as a margin to be used for additional academic work or for mechanic arts, household science, commercial work, and any other kind of work that the best interests of the student appear to require.*

No limitations should be imposed upon the use of the margin except that the instruction should be given by competent teachers with suitable equipment in classes not too large, and that the student's work should be of a satisfactory grade.

The recommendation that the subjects from which the margin may be made up should be left entirely unspecified appears to be vital to the progressive development of secondary education. As long as formal recognition must be sought for each new

subject, so long will the high school be subservient and not fully progressive. It ought to be possible for any strong high school at any time to introduce into its curriculum a subject that either meets the peculiar needs of the community or that appears to be the most appropriate vehicle for teachers of pronounced individuality.

This margin of 4 units is not excessive. It amounts to an average of only 1 unit a year. A course containing 11 units of academic or prepared work requires the student to carry, practically throughout the course, three of these subjects at a time. In general this involves the preparation of three lessons a day outside of the classroom. A daily assignment of more than three lessons together with manual training or vocational work in school hours is not conducive to a high standard of excellence. In many of our high schools girls, especially, are subjected to a scholastic routine not designed to develop a strong race, either physically or mentally. (Note: Placing the number of required units of academic or prepared work at 11 instead of 12 allows a leeway of 1 unit in case of a failure in the academic work. In case of no failure by taking 4 units each year the student may accomplish either an extra academic unit or an extra vocational unit.)

The provisions of the foregoing definition may be summarized as follows:

Nine specified units—

- 3 units of English.
- 2 units of one foreign language.
- 2 units of mathematics.
- 1 unit of social science, including history.
- 1 unit of natural science.

Two additional academic units.

One or both of these units must be advanced work to meet the requirement of a second major of three units.

Four units left as a margin for whatever work best meets the needs of the individual.

### C. REASONS FOR THE ADOPTION OF THIS DEFINITION AS THE BASIS OF COLLEGE ADMISSION.

College admission should be based solely upon the completion of a well-planned high-school course. The committee submits the following argument in defense of this proposition:

First. On the one hand, many students do not go to college because they took those courses which were dictated by their aptitudes and needs instead of courses prescribed by the colleges.

On the other hand, many students do not take the courses which they need because they think they may go to college.

A committee of the Boston Head Masters' Association, in a report approved by that association last fall, stated the difficulty as follows: "It frequently happens that a pupil in the public high school does not discover that he is likely to go to college until one, two, or three years of the high-school course have been completed. As matters stand now, many of the courses in which he has received instruction and in which he may have done excellent work are entirely useless to him in so far as he may apply them to the purposes of college admission. The committee are of the opinion that this is decidedly wrong."

The idea that the student should, early in his high-school course, decide whether he is going to college ignores one of the chief functions of the high school; namely, that of inspiring capable students with the desire for further education. It is coming to be clearly recognized that the chief characteristic of education in a democracy as contrasted with that in a society dominated by class distinction is the principle of the "open door." This principle of the "open door" is part of the great idea of the

conservation of human gifts. It demands that personal worth should be recognized wherever found. The college is one of the many doors that should be kept open. The colleges themselves bear tribute to this principle in the innumerable scholarships that they offer to boys and girls in humble circumstances. In fact, it has long been recognized in this country that one boy who seeks a college education because of a strong inner purpose in the face of obstacles is worth to the college and to society a dozen boys who go to college merely because it is regarded as the proper thing to do.

Second. The attempt that is often made to supplement the work now required by the colleges with such additional work as is required by the community and by a more adequate understanding of the needs of real boys and girls is highly unsatisfactory. May 7, 1910, the High School Teachers' Association of New York City issued a statement in which they affirmed:

"We believe that the interests of the 40,000 boys and girls who annually attend the 19 high schools of this city can not be wisely and fully served under present college entrance requirements. Our experience seems to prove the existence of a wide discrepancy between 'preparation for life' and 'preparation for college' as defined by college entrance requirements.

"The attempt to prepare the student for college under the present requirements and at the same time to teach him such other subjects as are needed for life is unsatisfactory. Under these conditions the student often has too much to do. The quality of all his work is likely to suffer. The additional subjects are slighted because they do not count for admission to college. In such a course it is impossible for the student to give these subjects as much time and energy as social conditions demand."

Third. Even by faithfully following the usual college prescription, the best preparation for college is not secured. Abraham Flexner, in his book "The American College," shows how the college is standing in its own way. He says that "The motive on which the college vainly relies, self-realization, has got to be rendered operative at the earlier stage." "As a matter of fact," he adds, "the secondary period is far more favorable than the college to free exploration of the boy." The restrictive preparatory courses prescribed by the colleges do not afford the kind of experience needed in the high school.

Fourth. In the attempt to prepare for the widely varying requirements of different colleges, the energies of the school are dissipated. The energy that should be devoted to meeting actual individual needs of students is expended upon the study of college catalogues. An institution that should be encouraged to develop internally is made subordinate and subservient. As an illustration of the confusion in the requirements of different colleges, we find that one college requires one foreign language, counts work in a second, and gives no credit for a third; another college requires two foreign languages and requires one unit in a third, unless music or physics is presented as a substitute; and a third college absolutely requires three foreign languages.

Fifth. But by far the most serious objection to the present condition is, as Commissioner Suedden says, to be found in the restrictive effect upon true high-school development. The high school today is the arena in which our greatest educational problems should be worked out. High-school attendance in this country has increased almost fourfold within the last 20 years. If the college will recognize the true function of the high school, this marvelous growth will continue unabated and the American high school will become an institution unparalleled as a factor for democratic living. It is doubtful whether any nation ever before possessed such an opportunity.

## SUPPLEMENTARY REPORT.

The committee submits the following additional statement and recommendation:

The universal education to which our institutions are now committed is radically different from the education for a literary class to which we were formerly devoted. So long as our education was designed for the few it was possible to require candidates for that education to conform to a certain definite intellectual type and to reject all other candidates. That type was defined in terms of Latin, Greek, and mathematics—substitutes not allowed. This definition actually debarred many individuals who did not entirely conform to the type, but who possessed other strong qualities that would have made them valuable members of the learned professions. Nevertheless the injustice of this procedure aroused no strong opposition because there were a sufficient number of other candidates conforming to the type to fill the very limited number of positions in the then existing professions.

As soon as the advantages of a higher education made a strong appeal to a somewhat larger group of men and women, the rigor of the former requirement of Latin, Greek, and mathematics was relaxed by reducing the amounts required and by allowing a substitution of modern language for part or all of the classical languages. This process was characterized by its opponents as "letting down the bars." Such it was, not so much in the sense that it made education easier, as in the sense that it permitted education to make its appeal to a much larger group of men and women.

We believe that the time has arrived when it is the duty of those engaged in education to consider the importance of making our education appeal to still other students. To-day it is impossible in many communities for a boy or a girl to obtain even a high-school education unless he or she can do passing work in both mathematics and a foreign language. Schoolmen in general are familiar with students, usually girls, who do good work in languages, history, and certain sciences, but who can not master high-school or college mathematics. There are other students, mostly boys, who do good work in mathematics, science, and history, but who have exceptional difficulty with foreign languages. A student of the latter type would find ample field for the exercise of all his linguistic ability in a reasonable mastery of the English language.

In the East we find a tendency to attach particular importance to the study of foreign languages, and in the West we find a tendency to emphasize mathematics. But native abilities are not geographical quantities.

We believe that insistence upon the study of mathematics and foreign language as a sine qua non of an education is based largely upon the belief that both are indispensable for intellectual discipline. But we know that many of our greatest men have been deficient in one or the other of these accomplishments. They evidently secured their intellectual power by other processes. The disciplinary possibilities of other subjects are not yet fully recognized.

In view of the foregoing statement, we recommend that section 4 of the definition of a well-planned high-school course be supplemented by the following additional statement:

*4 (a). In place of either two units of mathematics or two units of a foreign language, the substitution, under proper supervision, should be allowed of two units, consisting of a second unit of social science (including history) and a second unit of natural science.*

In other words, there should be allowed, under proper supervision, the selection of four units from the following:

- (1) Two units of one foreign language.
- (2) Two units of mathematics.
- (3) Two units consisting of a second unit of social science and a second unit of natural science.

According to this provision, it would be possible under proper supervision to substitute the work in columns (B) or (C) for the work in column (A).

	(A)	(B)	(C)
English.....	3	3	3
Foreign language.....	2	2	0
Mathematics.....	2	0	2
Social science.....	1	2	2
Natural science.....	1	2	2
Total specified.....	9	9	9
To which must be added to make another major.....	1 or 2	1	1
Total.....	10 or 11	10	10

Consequently the student without mathematics must present three units in two subjects and two units in the two remaining subjects, thereby demonstrating ability in four lines of work.

Similarly, the student without foreign languages must present three units in two subjects and two units in the two remaining subjects.

*To carry out this plan we would urge that at least many of the larger colleges should make special provision to continue the education of students of whom it has been discovered that the requirement of mathematics or the requirement of foreign language is an obstacle to the continuation of their education.*

Respectfully submitted.

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WILLIAM M. BUTLER, Principal, Yeatman High School, St. Louis, Mo.

FRANK B. DYER, Superintendent of Schools, Cincinnati, Ohio. [Now Superintendent of Schools, Boston, Mass.]

CHARLES W. EVANS, Principal, High School, East Orange, N. J.

CHARLES H. JUDD, Professor of Education, University of Chicago, Ill.

ALEXIS F. LANGE, Dean of College Faculties, University of California, Cal.

W. D. LEWIS, Principal, William Penn High School, Philadelphia, Pa.

WILLIAM ORR, Deputy State Commissioner of Education, Boston, Mass.

WILLIAM H. SMILEY, Principal, East Side High School, Denver, Colo.

*Committee.*

The chairman herewith appends the following statement from Prof. Charles H. Judd, expressing the opinion that even greater latitude should be allowed to the high school and explaining an important principle that should at this time be brought to the attention of all concerned with the relations of school and college.

*My Dear Mr. Chairman:*

In signing the report, I am very glad indeed to express my sympathy with the general outlines of the whole statement which is here made by the committee. It is my opinion that somewhat greater latitude should be allowed the high school in the organization of its courses. To this end, I should personally prefer that the various requirements be not specific in terms of the subjects. The only specification which I find it possible to favor is that which requires a certain amount of coherent work in the high school. To this end, I believe that it would be wiser to require two majors of three units, and one minor of two units. This is in keeping with the plan recently adopted by the University of Chicago.

One other principle should, I believe, be incorporated in any report which deals with the relations of high schools and colleges. These two institutions should follow up the work of high-school students much more completely than is now done. A student who comes from a high school into a college should have his relative rank in the

high-school class reported to the college. The work he is carrying on in the college should be carefully observed, and reports should be sent back to the high school, stating the rank of the student in college. Both institutions would profit by this exchange of information. The college would learn by such a comparative study of the student's work whether or not its courses are articulating directly with those of the high school. The high school would learn whether or not it is articulating with the college. It does not necessarily follow that the high school should in every case articulate with the college in such a way as to insure the high standing of its students in college.

Without attempting to pass on that question, however, the information that would be gained by the study of relative marks would be very valuable for the purpose of bringing to the consciousness of both institutions the character of the work which the students are able to do.

I should appreciate the opportunity of adding this comment to the report, if you do not feel that it would encumber the committee's statement. In any case I am prepared to sign the general report. These comments are merely added in the hope that the principles outlined in this report may be extended somewhat further than the committee has found it expedient to carry them.

CHARLES H. JUDD.

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 Vermont, University of, agricultural school, entrance requirements, 96; engineering school, entrance requirements, 86; entrance requirements, 70.  
 Virginia, University of, engineering school, entrance requirements, 86; entrance requirements, 70.  
 Vocational subjects, number of prescribed units, colleges of liberal arts, 12-17.

## W.

Wabash College, entrance requirements, 56.  
 Wake Forest College, entrance requirements, 63.  
 Washburn College, entrance requirements, 58.

Washington and Jefferson College, entrance requirements, 69.  
 Washington and Lee University, engineering school entrance requirements, 86; entrance requirements, 70.  
 Washington, State College of, engineering school, entrance requirements, 86.  
 Washington, University of, engineering school, entrance requirements, 83, 96; entrance requirements, 70.  
 Wellesley College, entrance requirements, 60.  
 Wells College, entrance requirements, 65.  
 Wesleyan University, entrance requirements, 54.  
 West Virginia University, agricultural school, entrance requirements, 96; engineering school, entrance requirements, 86; entrance requirements, 71.  
 Western College for Women, entrance requirements, 66.  
 Western Reserve University (for men), entrance requirements, 66; (for women), entrance requirements, 66.  
 Whitman College, entrance requirements, 71.  
 Willamette University, entrance requirements, 67.  
 William Jewell College, entrance requirements, 62.  
 Williams College, entrance requirements, 60; total units required, 20.  
 Wilson College, entrance requirements, 69.  
 Wisconsin, University of, agricultural school, entrance requirements, 96; engineering school, entrance requirements, 87; entrance requirements, 71; number of prescribed units, 13.  
 Wofford College, entrance requirements, 69.  
 Wooster, University of, entrance requirements, 66.  
 Worcester Polytechnic Institute, entrance requirements, 83.  
 Wyoming, University of, agricultural school, entrance requirements, 96; engineering school, entrance requirements, 87; entrance requirements, 71.

## Y.

Yale University, entrance requirements, 54; total units required, 20.  
 Yankton College, entrance requirements, 69.