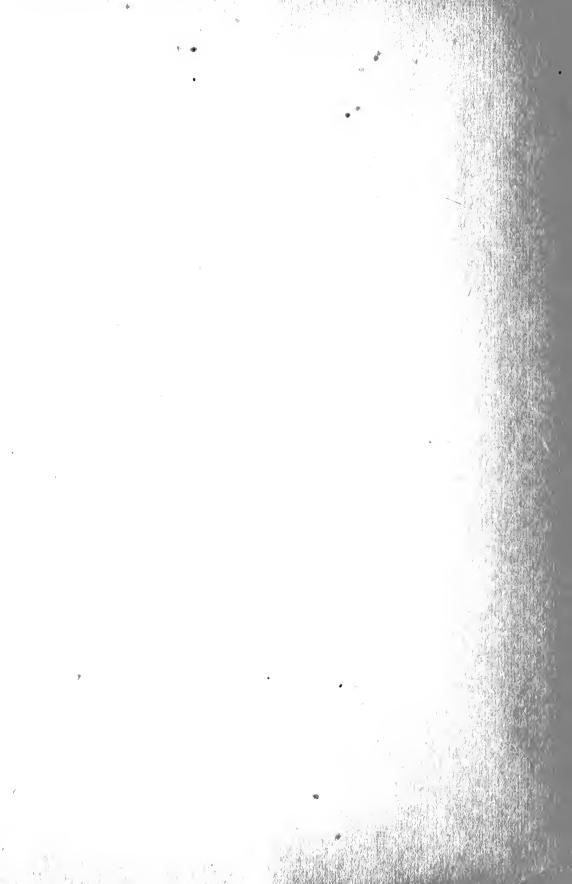
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## Requirements for the Bachelor's Degree

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CHARLES W. DABNEY, Ph.D., LL.D.,
President of the University of Tennessee





## REQUIREMENTS FOR THE BACHELOR'S DEGREE IN SOUTHERN COLLEGES

A REPORT PREPARED FOR THE ASSOCIATION OF COLLEGES AND PREPARATORY SCHOOLS
IN THE SOUTHERN STATES, READ AT THE MEETING AT ATHENS,
GEORGIA, NOVEMBER 2, 1898

BY
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ASSOCIATION, 1899

Reprinted from the School Revtew, No. 3, Vol. VII, at the University of Chicago Press.

FEB 17, 1905

LB2383 D2 50642

## REQUIREMENTS FOR THE BACHELOR'S DEGREE

Having probably accomplished all that can be accomplished at the present time in elevating the standard of admission to the freshman class, it is believed that the association should next direct its attention to the requirements for academic degrees. It was doubtless with this view that our secretary has asked me to prepare a report upon the requirements for bachelor degrees in the colleges and universities in the territory covered by this association. It was proposed at first to investigate all the degrees given by southern institutions, but the field was so large and the time allowed so short, that I have confined this investigation to the B.A. and B.S. degrees.

First, let us get clearly in mind the object of all colleges and all college courses.

The end of college education is culture, the only preparation for worthy life, the life of the ordinary man, as the end of the university education is the training to think and investigate, the only preparation for the worthiest life, the life of leadership in the world of thought and of action. This idea of the liberal education is as old as civilization, and has been the purpose of all true schools and the hope of all good teachers since the world began. "Wisdom is the principal thing, therefore get wisdom; and with all thy getting get understanding. Exalt her and she shall promote thee: she shall bring thee to honor," Aristotle taught that "there is a certain education said Solomon. which our sons should receive, not as being practical and useful, not as indispensable, but as liberal and noble. The endeavor of nature is, not only that men may be able to engage in business rightly, but also to spend their leisure nobly. The right conduct of business and the noble employment of leisure are both requisite." The ancients believed as we do that a liberal education is good for all races and orders of men, in all times and places, and under all conditions. This idea Cicero has expanded in the oft-quoted passage: "Nam ceteræ, neque temporum sunt, neque ætatum omnium neque locorum; at hæc studia adolescentiam alunt, senectutem oblectant, secundas res ornant, adversis perfugium ac solacium præbent, delectant domi, non impediunt foris, pernoctant nobiscum, peregrinantur, rusticantur."

We may differ as to the methods of giving the child a liberal edu-

cation—we have undoubtedly improved those methods and enlarged the scope of the liberal education since the days of Solomon, Aristotle, and Cicero - but scholars have never differed as to the objects aimed at as the foundation of a worthy life. The chief elements of the Greek system of education were æsthetic and physical culture, the cultivation of literary expression, and training in the rules of argumentation. Roman education emphasized the study of institutions and With the introduction of Christianity, this system was modified and improved in the direction of literary and religious culture. The Middle Ages witnessed a change in favor of the study of languages, literature, and a largely fictitious history; and for several centuries men gave themselves to a slavish study of manuscripts which contained, as they thought, all the wisdom of the world. It is only in modern times that we have learned to appreciate the book of nature and study it as the Creator intended we should. Few will now deny that a liberal education may be obtained by other methods than the study of Latin and Greek texts. Thus both the material and the methods of education change, but the ideal continues the same throughout all the ages. That ideal is today, as it always has been and always will be, a liberal education, the only preparation for the worthy life.

Men appreciated the value of the liberal education, and understood its methods, in part, at least, long before they had the slightest conception of its rationale. It was impossible for them to grasp this until that grand conception of modern science, the theory of evolution, came to illumine all our problems and direct all our methods. doctrine of infancy in the human species has thrown a flood of light upon the rationale of education, and has explained both the necessity for and a value of, that course of training which we have tried to give our youth ever since the time of Solomon. "The doctrine of evolution teaches us to look upon the world around us - our art, our science, our literature, our institutions, and our religious life—as an integral part, indeed, as the essential part, of our environment; and it teaches us to look upon education as the plastic period of adapting and adjusting our self-acting organism to this vast series of hereditary acquisitions. So that while the child's first right and first duty is to adjust himself physiologically to his environment, to learn to walk, to use his hands, and to feed himself, to be physically independent, there still remains the great outer circle of education or culture, without contact with which no human being is really either man or woman. receives first, and in a short series of years, his animal inheritance; it

then remains for us in the period of education to see to it that he comes into his human inheritance. . . . . This period of adjustment constitutes, then, the period of education; and this period of adjustment must, as it seems to me, give us the basis for all educational theory and all educational practice, and it must at the same time provide us with our ideals."—Butler.

It is the object of this investigation to ascertain what our southern colleges are doing to impart this liberal culture, as distinguished from the technical or professional education, or the special training for research, which it is the duty of the university to give. Let us first fix our attention closely upon the objects aimed at, and see how our methods measure up to these ideals. Perhaps the noblest and completest description of the liberal education in modern literature is contained in this paragraph from that great master of evolution and education both, Huxley: "That man, I think, has had a liberal education whose body has been so trained in youth that it is the ready servant of his will, and does with ease and pleasure all that as a mechanism it is capable of; whose intellect is a clear, cold, logic engine, with all its parts of equal strength and in smooth running order, ready, like a steam engine, to be turned to any kind of work and to spin the gossamers, as well as forge the anchors, of the mind; whose mind is stored with the knowledge of the great fundamental truths of nature and of the laws of her operations; one who, no stunted ascetic, is full of life and fire, but whose passions have been trained to come to heel by a vigorous will, the servant of a tender conscience; one who has learned to love all beauty, whether of nature or of art, to hate all vileness and to esteem others as himself."

This noble statement gives us the starting point for an analysis of the elements of the liberal education. First, the youth must have a body "so trained that it is the ready servant of his will, and does with ease and pleasure all that as a mechanism it is capable of." We know now that a knowledge of his physical nature, its structure, its organization, the laws of its development and health, and especially of those laws which control the working of the brain and the nervous system, is the most valuable knowledge the man can have. This implies also a knowledge of the effects of bodily habits upon mental states; of the laws of exercise, diet, and sleep, and of the right use of all those things that tend to produce that healthy body which the best support of the intellectual life. The Greeks gave a proper place to physical training in their system of education, but from their time to our own the physi-

cal education has been too much neglected. One of the most important questions we have to ask of our colleges is, What are you doing to build human "bodies which shall ever be the ready servant of the will and do with ease and pleasure all that as a mechanism they are capable of?" We regret to say that we have received a very unsatisfactory answer to this important question—so unsatisfactory an answer that we may as well say that very little is systematically done outside of a half dozen institutions—and drop the matter here.

Secondly, the making of the intellect, the building of the "clear, cold, logic engine, with all its parts of equal strength and in smooth running order." We give the youth this training chiefly by the study of mathematics and the physical sciences, and by training in logic and philosophy. How are we doing this?

Thirdly, we must give the youth a knowledge of his own tongue, its history, its laws, its idoms, and its capabilities. In these days it is necessary that he also have a knowledge of the tongues of several other peoples. In order to avail himself of the literature and art of the past and to make his own contribution to the thought of the future, he must, in fact, know all the methods of embodying thought and feeling. Language, the vehicle of thought, is absolutely essential, especially a mastery of the mother tongue. It is the crystal vial that contains all the potentiality of the living present, as literature is the sculptured urn that holds all the ashes of the dead past. These are not mere accomplishments; rightly viewed and used, they are an inspiration, a lesson, and a guide. Aside from their direct, or first uses, the languages are the most perfect educational polishing machines. In the gymnasium of the Latin and Greek, the mind, stripped like the athlete, brings many an intellectual muscle into play. Properly used, these studies exercise many faculties - observation, comparison, and analysis, as well as memory, imagination, and taste. Through them the youthful mind grows to robust manhood, so that he who was but a stripling of a freshman finds himself an intellectual Hercules when a senior.

Fourthly, we must store the mind with the knowledge of nature and her laws, while we fill the heart with the love of her. It is a trite saying that the Creator has given us two books to study—the book of Revelation and the book of Nature. But we cannot express it better. The book of Nature is laid out open before the child everywhere for the purpose of developing his senses and teaching him law and beauty. Nature study is the joy and inspiration of the young, the comfort and

recreation of the old; it brings us some of the most useful knowledge we ever get, trains the perceptive powers to habits of accurate and discriminating observation, and develops the reason and the judgment.

Fifthly, the liberally educated man must have a knowledge of the experiences and opinions of his ancestors as expressed in their institutions and laws. He must know all the sad and wearisome steps by which man has marched from savagery to civilization, from the darkness toward the light. So we come to sociology, the science of sciences, in the light of whose teachings, we optimists believe, man is to march through the deserts and the wildernesses into the promised land, which hope has ever held before our race, and which is the object of all our striving. For this Heaven the whole race is being educated; for races have their periods of infancy, youth, manhood, and old age, as well as individual men; and this world was made to be the home, the school, and the training ground of our human kind, so that, at least, we might all enter into this estate of perfect knowledge, perfect peace, and perfect joy.

Sixthly, and, finally, the moral and religious nature must be developed—"the passion trained to come to heel by a vigorous will, the servant of a tender conscience." Better not educate the man at all than sharpen all his powers and then leave him without a conscience to direct him. Conscience is the guardian of the man, and righteousness is the teacher of conscience. Righteousness is the finishing touch to the picture, the final tempering of the tool, the governor of the engine, the compass of the ship. What is man worth without a "tender conscience?" What is education worth without righteousness? Just as much as the picture without the finishing touch, the tool without temper, the engine without governor, the ship without compass.

Let us see, now, how our southern colleges are planning to give their students this sixfold training which we call the liberal education. In order to conform to the language of the catalogues, we will group the various subjects of instruction together under the following heads:

First, the English language—the mother tongue—and its literature.

Second, other languages and their literatures, especially the glorious Latin and Greek, and the French and the German—and, must we not now say, Spanish?

Third, the mathematics.

Fourth, the natural sciences; divided into the experimental sciences, physics, and chemistry, and the descriptive sciences, botany, and biology.

Fifth, history and political science.

Sixth, philosophy.

Seventh, physical culture and all that contributes thereto.

Eighth, moral and righteous training. Moral training must, of course, be given with and through all of these. It is too spiritual to be described and measured as we describe and measure the others, and must, therefore, be left to be understood.

The courses of study presented in the catalogues of some fifty colleges and universities in our territory have been examined and analyzed, and the results classified and measured in accordance with the plan used in our best institutions; that is, the work required in the different subjects has been reduced to the number of hours of recitations and lectures in the annual session. The number of written exercises, themes, or reports, required to be prepared outside recitation hours were noted wherever possible. The amount of parallel reading required was also noted. The minimum amount of laboratory work required was ascertained, each unit representing two hours. In the accompanying tables, the first figures under each head represent the number of hours of recitations or lectures. W. stands for regular written exercises, themes, or reports, and the figures following express the number of them required. P. stands for parallel reading, and the figures following mean the number of pages. L. stands for laboratory work, and the figures represent the number of two-hour periods. Where sciences are taught in the laboratory (as they should be), this laboratory work is included with the recitations and lectures, two hours being reckoned as one. Where the instruction is in part by lectures and in part by recitation, the amount of laboratory work required is given in parenthesis. The work in languages and literature is given under three heads: the English language and literature, the ancient languages and their literature, the modern languages and their literature; and the total of these is given in the next column. Pure mathematics has a column to itself. Experimental sciences and descriptive sciences are given in separate columns, and the total work bestowed upon mathematics and sciences is given in the next column. History and political science are given in one column, philosophy in another, and these two added together in a third. A column is devoted to physical culture, including military drill and similar exercises. Another column gives the total number of hours required in the entire course for B.A. or B.S. The first figures in this case express the total number of hours required in the course; the second figure

the number of hours of prescribed studies; and the third the number of hours of elective studies. The word "thesis" in this column means that an original thesis or dissertation is required in addition to the foregoing work. The last column gives the average number of hours per week of recitation, lecture, and laboratory work for the entire course (two laboratory equal to one of recitation). Accompanying this paper is only one of the large tables. This gives in one group the requirements for the degree of Bachelor of Arts in the eight colleges and universities belonging to the Association of Colleges and Preparatory Schools in the Southern States. For the purpose of comparison we have added at the bottom of this table the work required for the B.A. at Yale. The second group in the table gives the requirements for the degree of B.A. in twelve of the best colleges and universities in the territory having nearly the same entrance and graduation requirements as the colleges belonging to this association. It has not been possible, in the case of some of the institutions having the "Group system," to distribute the work required into all of the columns; but the distribution has been carried as far as possible, and the "Group" distribution is given wherever it was impossible to carry it further.

The figures without initials before them represent the total number of hours in the annual session. For example, if a study is scheduled for three hours a week for a term of twelve weeks, the gross number of thirty-six hours is included. If a subject is scheduled for three hours a week for forty weeks, 120 hours are put down. No effort has been made to eliminate the holidays or periods devoted to examinations. It is believed that the deduction for holidays and examinations would be approximately equal for all institutions.

The announcements or catalogues give in most cases fairly definite statements with regard to the subjects taught and the number of hours devoted to recitations and lectures. The majority of them are very indefinite, however, with regard to the number of written exercises, themes, or reports, and the amount of parallel reading required. Very few state exactly how much laboratory work is required, though the majority mention it in connection with the sciences. Statements with regard to the work in history and philosophy are less definite than those with regard to the work in mathematics and languages. The work required in physical culture is rarely defined at all, even in institutions known to have good equipment. We would urge all institutions to be more definite in their statements of all these matters.

In some institutions, where the rule is to give perfect freedom of election, it has been impossible to ascertain what the requirements for B.A. are. To illustrate, one institution merely requires that the student shall have finished twenty units, one unit being a three-hour course running through the session of forty weeks, or the equivalent made up from shorter courses, making a total of 2400 hours for the degree. Only a few studies amounting to two or three units are prescribed. Such an institution has no course whatever for the B.A. degree. The elective system is one thing; to give absolute freedom of election without system is a very different thing. The majority of our institutions give the student some freedom of election within "groups," and prescribe a certain order of studies. Such requirements are logical and have been included. To give the kind of undergraduates we get in the South the privilege to elect all their studies without regard to "group" or order of study, is contrary to every principle of education. In such extreme cases no B.A. requirements could be stated.

Examining the first group in the table (institutions in the Southern College Association), we find that they all require from one to three years' work in English, from two to four years' work in ancient language, and one to three years' work in pure mathematics. They all require some science, but the requirements in sciences and philosophy vary more widely. The following table, giving the number of hours positively prescribed in the different subjects, and the average total number of hours, and hours per week for the eight colleges in this association, shows how the requirements vary in the different institutions:

WORK PRESCRIBED BY COLLEGES IN SOUTHERN ASSOCIATION FOR

	B.A. DEGREE		
	Highest, hours	Lowest, hours]	Average for these colleges hours
On English and literature, -	Univ. So. Course A.	Wash. & Lee.	
	38o	120	260
On ancient languages and literature,	Univ. So. Course A.	Univ. Tenn.	
	88o	280	563
On the total of prescribed			
languages and literature, -	Vanderbilt and Univ. Miss.	Wash. & Lee.	
	1120	620	1090



## REQUIREMENTS FOR B.A. IN COLLEGES

Double lines are drawn between the three great groups of studies: Languages and Literature; Mathematics and Sciences; and History, Political Science, and Philosophy. When the number in column of totals of each group exceeds sum of numbers in preceding columns, the difference in hours is to be elected in the group.

Figures = Hours recitations or lectures, including laboratory z = 1, in work prescribed only. W = Regular written exercises, themes or reports; figures following = number required in course. P. = Parallel reading, figures = pages. L. = Regular laboratory periods. 1 L. = 2 hours. Physical culture is reported by so few that it is omitted from totals.

## I INSTITUTIONS IN THE SOUTHERN COLLEGE ASSOCIATION HAVING THE SAME MINIMUM ENTRANCE REQUIREMENTS\*

# X X		Languages a	LANGUAGES AND LITERATURE	E		Матнемати	MATHEMATICS AND SCIENCES	ES		PHILOSOPHY	TENCE AND	MILITARY		Horse
WEEKS IN SESSION	English	Ancient	Modern	Total Lit. and Lang.	Math.	Experi- mental	Descriptive	Total Math. and Sciences	History and Political Sciences	Philosophy	Total History and Philosophy	DRILL AND PHYSICAL CULTURE	REQUIRED IN 4 VEARS' THESIS	PER WEEK AVERAGE
Vanderbilt 40 weeks	240 W. 60 P. 2500 p.	649 W. 40 P.	240 W. P.	W. 100 W. 100 P.	160	(L. 120)	Elective L.	(L. 120)	% W.	120 P,	200	Gym, required	2560 Prescribed, 1720 Elective, 840	91
University of North Ca10- lina, 40 weeks	240 IV.	440 117, P.	120 1/1. P.	800 W.	320	120 L.	120 L,	200	130 P.	120 W.	240		2560 Thesis Prescribed, 1000 Elective, 900	IÒ
	Group	Group I, Value 16 Prescribed		Group I,		Group II			Group III	Group III, Value 10	Group III		Value, 42 =	
Washington and Lee, 40 weeks	120 W.	3%° W.	240 W. P. 2200 p.	M: al. 10=020 W: al. P.		vane of 10 required in Math. and Sciences, 16 equivalent to 200 480	ed in Math. nivalent to 480	680 L.	History. F ences and elective	History, Political Sciences and Philosophy elective	Val. 10=300 W. P.	Gym. Voluntary	2180 Thesis Elective, 24= Elective, 520 lus,	13:5
Univ. South (Course A) 40 weeks	380 W. 40; P.	88°0 W.	Elective W.	Elective W. P.	360	66 L.	120 L.	540	300	120 II.	420		ohaz	10.5
Univ. Miss. 40 weeks	320 W.	800 W. 134 P.	Elective W. 85	1120 W. 214 P.	320	(L. 80)	Elective L.	720 L. 80	320 W.	Elective	320 W.	130	2800 Thesis Prescribed, 2100 Elective, 040	17.5
Trinity Col. 40 weeks	240 W.	400	120	760	240	r60 W.		000	+80 W.	120	000		Prescribed, 1700 Elective, 800	10
Univ. Tenn. 40 weeks	240 W, 80 P. are prescrib Jr. am	240 280 240 W. 80 W. 80 P. 120 P. 120 are prescribed in Fr. and Soph. In	240 W. 80 P. 120 Id Soph. In elected	1480 W. 360 P.	320	360 or 440 (L. 120 or L. 200 Prescribed in Fr. Soph. In Jr. and 800 must be elected.	360 or 440 (L. 120 or L. 200) Prescribed in Fr. and pph. In Jr. and Sr. o must be elected.	Required in Sciences 17to or 1240	W. 64 P. 3000	W. 20	300 W. 84 P.	400	2070 Presc'd in groups Thesis	3.5.
Univ, Ala, 38 weeks	304 W.	684 W.	45ŏ W.	1102 W.	342	266 (L. 76)		608 (L. 76)	266	152	817	822	Prescribed, 2128 Blective, 494	1.7
Averages of prescribed studies	260	563	202	1000	282	229	226	626	261	126 (Jr. and Sr.)	364	272	1192	10,5
Yale College, (presc'd in Fr. and Soph, all elective in Jr. and Sr.)	152	450	228	836	304	411				061	190		2280 Prescribed, 1344 Elective, 930	1.5

# II. INSTITUTIONS NOT MEMBERS OF THE SOUTBERN-COLLEGE ASSOCIATION, WHOSE ENTRANCE REQUIREMENTS APPROXIMATE THOSE OF THE SOUTHERN ASSOCIATION

Randolph-Macon (men) 40 weeks	320 W, 120 P, 2000	Soo or 360 and W, 40	440 W. 40	W. 200 P. 2000	360	(L. 130)	280 (L. 80)	1050 L. 290	% P.	160	240	120	2410 or 2540? All prescribed	15 or 16
Richmond College 39 weeks	Group HII 300 W	W. So Greek P. 2500 (in English) W. Latin P. 350	F	Group 1 Value 24 W.5 W.5 P.	195	195 L. 78	H	Group II Value 15 7°2 L. 78	Ф,	195	Group III (Incl. Eng.) Value 15 585	Physical Culture Voluntary	(Value 70) z847 Prescribed z26z Efective 585 Essay	80
University of Virginia 40 weeks	M. 24 P.	240 W.: P.:	120 W. P.	45° F	120	I.So	120 L.	540? OF 420	P. Elective	120	120	Physical Culture Voluntary	1380 Prescribed 1140 Elective 240	
Hampden-Sidney 40 weeks	, 20 W. 80 P.	5.¥°.	W. 100 P.	1080 W. 80 P.	00+	360 L. 60 W.	ço	760? L. 60 W.	28 F.	8	84	Physical Culture Voluntary	2440 Prescribed 2240 Elective 200	15.2
Wake Forest 38 weeks	W. 38	W. 70	M. 38	ccs W. 152 P.	304	304 L. 76	266 L. 152	874 L. 228	81	*11	364	Physical Culture Voluntary	2546 Prescribed 1586? Elective 960 Theses	16.7
Davidson College 40 weeks	Iço	%	W.'.	7.20 W.	350	160		450	Sz		552		zoo Prescribed zooë Elective 600	91
University of Georgia	W. 24	W.:.	W. P. Elective	1300 or 1420 W. P.	0++	S, i	256 L.	1076	81	Sa	37		2936 or 3056 All prescribed	18.5 01 19
Central University (Ky.) 38 weeks	408 W. 38	7.08 W. P.		1286 F.	न E	7, 0	67	708	88.88	304	63 82		267r Prescribed 2443 Elective 228	17
Worford (Course A) 38 weeks	450	995		1210	380	351	60	965	114	15.25	25%	Phys. Cul.	az200 All prescribed	15
Arkansas Industrial Univ.	25°.W.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	W.	1280	900	120 L. 20	120 L.	440	Elective W. P.	L'estive L.	Elective	Military drill required	2400 Prescribed 1720 Elective 620	101
Tulane University	W. 42	23.50	T. H.	zegz W.	D H CI	L. %	L. Elective	NO et	87	125	83		2748 All prescribed	17
Average	208	623	880	1000		-	(				000		2000	16

<sup>\*</sup>This association prescribes the following minimum requirements for admission to college: In English: Requirements of the Ausociation of Schools and Colleges in the Middle States and Maryland; United States History and General Geography: Arithmetic, and Algebra through quadratics and two books of Pane Geometry; four books of Cassar, four books of Horace or Cicero, or their equivalent, accompanied by work in grammar and prose composition; three books of Nenophon's Anabasis, or an equivalent, with accompanying work in grammar and prose composition; examinations in history, geography, and English are required of all; those in Latin, Greek, and mathematics are required of all expecting to continue these studies.



	Highest, hours	Lowest, hours	Average for these colleges hours
On pure mathematics,	Univ. So.	Vanderbilt.	
	360	160	282
On experimental sciences, -	Univ. Miss.	Univ. So.	
	400	60	229
On descriptive sciences, -	Univ. Tenn.	Several	
	440	none	226
On total in mathematics and			
sciences,	Univ. Tenn.	Vanderbilt.	
	1240	360	626
On history and political			
science and philosophy, -	Trinity.	Vanderbilt.	
	600	200	364
Total required for degree, -	Univ. Tenn.	Wash. & Lee	
	2970	2180	2611
Total positively prescribed,	Univ. Miss.	Univ. N. C.	
	2160 out of 2800	1600 out of 2560	)
Average per week for whole			
course,	- Univ. Tenn.	Wash. & Lee	
	18 1/2	13 1/2	161/2

The requirements of the second group of institutions do not differ greatly from the above, with the exception of the University of Virginia, which requires a total of only 1380 hours, 1140 of which are prescribed and 240 elective, against a total of 2478 for all the institutions of this group. The methods of the University of Virginia are so different from those of other institutions that they can hardly be compared. No order of studies is prescribed. It requires at the present time, however, a definite amount of work in each one of the seven groups which have been inserted in the table.

We have also tabulated the courses offered by some thirty other institutions, denominational colleges, agricultural and mechanical colleges, and miscellaneous institutions. There is not space to present the results. The important points learned from them will be noticed below.

Further discussion of the data contained in the tables is unnecessary. They will repay careful study, and each reader will draw his own conclusions.

Some of the institutions giving great freedom of election object to this plan of measuring the work done in hours of lectures, recitations, laboratory work, etc., on the ground that time is not an important factor in their requirements. With them the student is given his degree whenever he can pass the required examinations, whether he has attended one year or ten, and taken 600 hours, or even 6000, of recitation and laboratory work in the institution. If we cannot measure our requirements in hours of lectures, recitations, and laboratory work, and in numbers of written reports and pages of parallel reading, how shall we measure them at all? Their plan is opposed alike to the best experience of the oldest schools and the surest teachings of modern science. Carried out to its conclusion, it means that neither time nor environment, residence in a community of scholars, daily contact with learned professors, or regular work in libraries and laboratories, count for anything in education. These things may be stimuli or helps, but they are not necessary. Do these institutions mean to tell their students that these things are really not necessary, and that they might as well take their books and apparatus home and do their work there and come up to the university for examinations? It is universally agreed, now, that examinations are no adequate test of culture, even if they are a test of information acquired. As time is a great, if not the most essential, factor of evolution, so it is the most important factor in education, and the most essential part of the environment of culture is the people we meet, the books we read, and the things we see and work with. To deny that we can measure our requirements in time or estimate the educational value of our institutions by taking an inventory of their professors, libraries, laboratories, etc., is to remove the foundations of our system of education.

We have also prepared a similar table showing the requirements for the B.S. degrees in our colleges. The effort was carried far enough to show very clearly that nothing more could be learned from the investigation beyond the fact that our colleges have extremely indefinite, and widely varying views with regard to the meaning of the B.S. degrees. In the best institutions the B.S. course is one in which the sciences and modern languages have the leading place. In the majority, however, the course for B.S. is a hotchpotch of whatever the college has to offer outside of the ancient languages. For this reason, we will not burden this paper with this table or any discussion of it.

### RECOMMENDATIONS

It is with great hesitation that I submit some general conclusions and recommendations for the consideration of this association. Believing that a set of propositions is necessary in order to start the discussion, which, it is hoped, will lead to the adoption of certain fixed

principles regulating the requirements for academic degrees in the institutions belonging to this association, I make the following suggestions:

It is impossible for me to give in detail all the reasons for these conclusions and recommendations, though they are drawn from the study I have made and are based upon the facts ascertained. I cannot present all the data used in any number of tables, although I have with me some fifty sheets. representing the courses in as many different institutions, which I hope members will examine and criticise.

I believe that the conditions existing in the southern colleges whose published catalogues and reports have been studied justify me in proposing that this association consider definite action upon the following points:

Abolish all academic degrees excepting the B.A. and pos-First. sibly the B.S. The first thing that impresses one in looking over the lists of degrees given by these institutions, is the fertility of the imagination and the inventive powers of their faculties as displayed in the multiplication of degrees and courses of study. As a rule, the smaller the colleges and the more limited their faculties, the more numerous are the courses of study and the degrees offered. Among bachelors degrees we find Bachelor of Arts, of sciences, of philosophy, of letters, of pedagogics, and of literature; not to speak of Bachelors of Agriculture, scientific agriculture, civil, mining, and electrical engineering, of mechanic arts; of veterinary science, and even of domestic sciencewhatever that is - which probably do not belong to our field. Confining ourselves to the degrees supposed to represent the liberal education, we should give only those which have some real significance. Under this rule, we should certainly eliminate the degree of Bachelor of Philosophy, which students usually consider the "consolation prize," in horse-racing parlance, to be awarded to him who cannot get anything better. So I fail to see that the degree of Bachelor of Letters or of Bachelor of Literature has any significance in these colleges different from that of Bachelor of Arts.

Second. The association should denounce in unmeasured terms the practice of some colleges of giving honorary academic degrees. It is bad enough to give hononary A.M.'s and Ph.D.'s, which should be earned graduate university degrees, awarded only for the highest attainments in certain special studies and upon evidence of ability to conduct independent research, and tested by a course of several years, based upon a liberal education. But it is an intolerable outrage to give honorary

bachelor degrees, because this practice strikes at the very foundation of the liberal education. No self-respecting man will have a B.A. or B.S. degree if we give them away for nothing.

Third. Let us agree upon certain general requirements for the bachelor degrees that we do give, and make them signify something. Basing my suggestions upon the average requirements of our more reputable institutions and seeking to make them what they can do best, I would suggest for the B.A. degree the following program:

A course of study, based upon the present requirements of this association for admission to the freshman class, covering not less than three years for the best prepared and brightest students, but requiring four years of the averge student, aggregating a total of at least 2400 hours of recitations, lectures, and laboratory work (counting two hours of laboratory work for each one of lecture or recitation), distributed among the four great groups of studies in approximately the following proportions:

- 1. Languages and literature, about 960 hours, including 240 hours of the English language and literature, 240 hours in one ancient language, at least, with weekly written work and parallel reading in both; the remainder to be made up from the other ancient and modern languages.
- 2. Pure mathematics, at least 240 hours, covering advanced algebra, plane and solid geometry, and plane trigonometry.
- 3. The natural sciences, at least 480 hours, divided between one experimental science and one descriptive science, with regular laboratory work. Our southern preparatory schools do little in the natural sciences, and this makes it necessary to give considerable time to their study in the college course. This has always been the weakest place in our southern colleges, and in many of them the sciences are still wretchedly taught.
- 4. History, political science, and philosophy, 240 hours, two years' study in some department of history, or one year each in history and philosophy, with written reports and parallel reading.

This leaves 480 hours to be elected. I would recommend that the studies for the first two years be prescribed for the most part, and their order fixed; in other words, that the electives be confined chiefly to the last two years of the course. We should insist upon a logical order of studies during the entire course. The so-called elective system, as I have suggested above, has done as much as anything else to degrade the bachelor degrees in our colleges. It is absurd to talk about a

seventeen-year-old boy electing for himself a course of liberal education, and it is even more absurd to permit him to take the course he elects in any order he may choose. An à la carte dinner is a sufficiently dangerous thing for the infant when eaten in proper order and manner; we would think it a crime to let the child eat his ice and soup, his cheese and his roast, his salad and his entrees all at the same time or in any order that might strike his fancy. This is exactly what happens in a good many of our so-called southern universities with elective courses. We should allow no elections on the part of students which prevent a proper distribution of work among the four great groups of subjects named above, and should see to it that the work is undertaken in proper order and done in a proper manner. At present I fear that it is true of us, as a recent writer has said, that "a B.A. is as meaningless an abbreviation as one can find." The B.A. used to be considered a license to teach the common, literary branches. has lost this significance, is it not the fault of our institutions? How shall we make it mean something again? Only by agreeing among ourselves what it shall stand for, and then enforcing that standard by every fair means possible. We can restore the Bachelor of Arts to his profession as teacher only by making the degree represent a definite amount of discipline and culture, as proposed above. In order to be sure of this, it will be absolutely requisite in addition that the candidate should pursue these studies in proper order and in a systematic way, in a public institution, under competent teachers, for a definite and fixed length of time, and finally be promoted upon examinations whose results should be recorded and certified by a diploma. means that we must agree among ourselves what institutions are worthy of recognition, and then cultivate among graduates the habit of attaching the name of their institution to their degree.

Fourth. We should distinguish sharply between technical and professional degrees in the B.A., and especially between these degrees and the B.S. If we adopt the above course for the B.A. degree, then the B.S. degree should make mathematics and experimental and descriptive sciences the chief things; allowing, say, 360 hours for pure mathematics and 840 hours for the sciences, including a proper amount of laboratory work. We should require in addition at least 240 hours of English language and literature; 240 hours of a modern language; and 240 hours of history and philosophy, leaving about 480 hours to be elected. Again, the work of the first two years should be largely prescribed, and the order of studies laid down, and elective work

reserved for the last two years. In addition to the 2400 hours required for the B.A. and the B.S. degree, there should in all cases be required a systematic course in physical culture, including instruction in regard to diet, clothing, sleep, and the methods of preserving the health and keeping one's self in condition for the highest intellectual life. Our experience teaches us that no subjects are of greater importance to the success of the student, and that none are more sadly neglected, indeed, both in the homes and in the schools.

In conclusion, it must be apparent that our association can render no better service than by making the bachelor degrees of our colleges signify something definite in the way of discipline and culture. Our stronger institutions need to have their work straightened out and leveled up, and the weaker ones need our assistance. Will not the institutions of this association set an example by adopting a definite plan of work leading to bachelor degrees, and by adopting definite rules with regard to the requirements for these degrees, which will make them mean something, and then go to work to enforce these rules with all the strength they have? The medical colleges have organized associations, whose objects are, the establishment of fixed requirements for the degree of doctor of medicine. Has not the time come for an association of academic institutions which shall fix the requirements for our ordinary college degrees, and thus put a liberal education upon a sound basis?

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