

1902.
NEW ZEALAND.

EDUCATION: COMMERCIAL EDUCATION.

Presented to both Houses of the General Assembly by Command of His Excellency.

The SECRETARY FOR EDUCATION to the Hon. the MINISTER.

(Memorandum.)

Education Department, Wellington, 21st August, 1902.

I VENTURE to bring under your notice the accompanying pamphlet in regard to the proposed Faculty of Commerce in the University of Birmingham, together with the curriculum and regulations for the degree of Bachelor of Commerce.

I would point out that the regulations under "The Manual and Technical Instruction Act, 1900," issued last year and revised this year, contain provisions for the establishment of "special" or "associated classes," or of college classes in certain commercial subjects, as will be seen from the following extracts:—

A. CONTINUATION CLASSES.

A "continuation class" means a class commencing not earlier than 4 o'clock in the afternoon, and in which instruction is given in the ordinary public-school subjects, or in other subjects of general or commercial education, such as the following:—

1. The subjects of the public-school syllabus for Standards V. and VI.
2. English; to include composition and the study of a work or works of a standard author or authors.
3. French, German, Italian, Latin, Greek; the teaching to include in every case a reasonable amount of continuous reading matter, and, in the case of a living language, to be directed to the practical end of giving the pupils the power of speaking the language.
4. Mathematics (algebra and higher arithmetic, geometry, trigonometry, &c.).
5. Mensuration (as for builders, surveyors, &c.), which must include practical measurements by the pupils.
6. Book-keeping, *précis*-writing and correspondence, shorthand, typewriting, commercial and actuarial arithmetic, commercial law, or any other branch of political economy, economics of industry, commercial history, industrial history, commercial geography, when claims cannot be made for these subjects under the head of "technical instruction."
7. Any natural physical or chemical science, treated practically, although not fulfilling the conditions laid down for such science as a branch of technical instruction. Not less than one-third of the time must, however, be devoted to practical work.
8. English history; general history; constitutional history.
9. Elocution.
10. Vocal music, which must include singing from notes and the elements of the theory of music.
11. Linear drawing by aid of instruments; freehand outline-drawing of rigid forms from flat examples; freehand outline-drawing from the "round."

REGULATION 45.

Instruction in subjects connected with commercial pursuits, in order to be deemed "technical instruction" [which is otherwise recognised in continuation classes] must include three or more of the following subjects, one at least of which must be taken from division (a).

- (a.) (1.) Book-keeping (including commercial technology);
- (2.) Shorthand;
- (3.) Commercial law;
- (4.) Industrial law;
- (5.) Economics of industry;
- (6.) Chemistry, treated practically, with immediate reference to commerce or manufactures;
- (b.) (1.) Typewriting;
- (2.) Correspondence and *précis*-writing;
- (3.) Commercial or actuarial arithmetic;
- (4.) Commercial history;
- (5.) Industrial history;
- (6.) Commercial geography;
- (7.) Other similar subjects.

III. COLLEGE CLASSES. (REGULATION 47.)

(a) All the subjects in Divisions (1), (2), (3), (4) of clause 43 will be recognised as subjects of technical instruction in college classes; also

(b.) Chemistry or any other science treated practically with immediate reference to agriculture, horticulture, or dairy work, or to any other industry, or to manufactures or commerce.

(c.) Commercial law; industrial law; economics of industry, or any other branch of political economy; actuarial arithmetic, including the use of logarithms; commercial history; industrial history; higher commercial geography.

Although the time may not yet have arrived for the establishment of a Degree of Commerce in connection with the University of New Zealand, yet it may be worth the while of the Senate of the University to consider whether by granting certificates or diplomas in "Commerce" it might not accord to it in some degree the recognition already given to law, medicine, engineering, and agriculture.

Hon. W. C. Walker.

G. HOBGEN.

THE FACULTY OF COMMERCE IN THE UNIVERSITY OF BIRMINGHAM:
ITS PURPOSE AND PROGRAMME.

THE Faculty of Commerce, created in the University of Birmingham, will begin its work upon the 1st October, 1902. That work will be the provision of a course of training suitable for men who look forward to business careers. Its object is the education, not of the rank and file, but of the officers of the industrial and commercial army: of those who, as principals, directors, managers, secretaries, heads of departments, &c., will ultimately guide the business activity of the country.

The establishment of such a Faculty—the first in England—is the outcome of motives similar to those which are leading to the creation of like institutions in the two other great commercial countries of our time—the United States and Germany. It is believed that a training can be devised which, while strengthening the powers of judgment, widening the sympathies, and stimulating the imagination—the ends of all really liberal education—will yet be of real value as a preparation for the practical duties of later life. It is felt that if the universities are to maintain their position in the modern world they must have regard to the dominant interests of that world; that they must not be content simply to prepare men for what it has been customary to call the "learned professions." Some universities have, indeed, already taken steps towards meeting the new needs of the time by the establishment of schools of engineering; but hitherto the much wider need of *commercial* education—an education of benefit to those who will have to assume responsibility, to take the initiative and to control men in the ordinary conduct of trade or manufacture—has been well-nigh disregarded. And yet the time is ripe for an effort in this direction. The world has now had a long enough experience of modern means of production and modern means of communication for the accumulation of a large fund of experience: and the man who proposes to engage in a business career can now be put in possession, not only of systematic information as to contemporary conditions, but also of a body of principles of policy deduced from current practice. The place of the academic teacher is not to elaborate some *a priori* theory, but to gather, arrange, and present the lessons of practical experience. He has to explain the inter-relation of those conclusions which, in actual affairs, are arrived at singly and in isolation, one from another; and to show that they are not merely accidental happenings but the natural outcome of the situation.

No system of education, however well designed, can, of course, take the place either of natural ability or of experience. But this is equally true of medical training. No medical-school discipline can create a great physician or surgeon, unless the student has exceptional natural qualities; and yet this is not regarded as a fatal objection to medical schools. It is felt that a systematic medical education will, in the first place, give even exceptional ability a better opportunity to make itself manifest, and, in the second place, raise the general level of efficiency among the ordinary members of the profession. The parallel is evidently not a complete one; for, under modern competitive conditions, there is far more room in business for new combinations, and far more demand for enterprise and for power of organization and administration than in the career of the medical man. Yet the analogy is valuable up to a certain point. A systematic business training would certainly raise the general level of efficiency in the ordinary management of commercial affairs; and, though it cannot create geniuses, it may direct into the paths of commercial life a great deal of ability of a high quality which at present goes to waste.

Education, as before remarked, cannot take the place of experience. The attempt in certain continental institutions to reproduce the course of counting-house procedure may, perhaps, be a useful preparation for the lower grades of service; but, for the higher, nothing can dispense with the actual bearing of responsibility and incurring of risks. No curriculum can possibly be devised which will enable the commercial graduate to step at once into positions of leadership and authority; but, nevertheless, much can be done to enable the young man of business to profit by his early experience more rapidly and less painfully than is commonly the case.

It is sometimes objected that "business can only be learnt in business," and that "college life unfits a man for business." As to the latter objection, all that need be said in this place is that the writer of this paper by no means maintains the desirability of any and every sort of college life for every future business man. He is concerned only to maintain the desirability, for most business men of the higher grades, of a training specially adapted to their needs, and carried on in an active business atmosphere, such as that of Birmingham or other great provincial cities. Whatever disadvantages a great industrial city may present as the home of a university, it has this enormous advantage from the present point of view that a student therein will be far less likely to lose touch of the future needs of active life. As to the former objection, he is bound to recognise that only actual trial can determine how far men can be definitely prepared in college for commercial life. But there are several considerations which make it worth while to try the experiment.

1. It is a common complaint that a great deal of English business is marked by unintelligent rule-of-thumb routine. This would seem to be the natural result of putting boys into the office at sixteen or seventeen and never giving them a chance to widen their mental horizon.

2. During the last few decades there has been a marked acceleration of the speed of industrial and commercial change. The application of science to machinery involves more frequent changes in manufacturing processes. The extension of means of communication means a widening of the area of competition and a frequent transference of markets. All this calls more and more for mental flexibility, alertness, adaptability on the part of traders. Men need, more than they did fifty years ago, to be able to think round and about their business, to lift themselves above its daily details and to judge of it as a whole. But such qualities are certainly not likely to be stimulated by early absorption in the subordinate routine of a particular occupation. There is some chance of promoting them by courses of instruction which shall accustom the future trader to survey a wide range of industrial undertakings, to watch the development of the world's great markets, and to estimate the resources and capabilities of other nations.

3. Elderly merchants and manufacturers are often heard to lament that the rising generation does not take the same keen interest in business as in their young days. On inquiry it usually appears that the young days to which they refer were those in which they were themselves creating their businesses, and that the rising generation means 'the sons and grandsons to whom they hand over businesses already established. We may be sure that, for a long time to come, many of the leaders of industry will be self-made men, and that they will be keen enough about their work. But much of the trade of the country must be carried on by men who inherit their positions; and it is asking too much of human nature to expect such men to feel the same zest in their occupation as their fathers who made their own way. But if nothing can come up to the stern joy of original creation, its place can, in some measure, be filled by intellectual interest in the occupation. This is what a commercial training can give, such as the University of Birmingham proposes to provide.

4. Unfortunately, as things are at present in England, the better the educational opportunities have been, the greater is often the distaste for business. A correspondent, who has ample means of judging, writes thus: "Americans succeed because of knowledge, a good start, no looking back, and no regrets. They take to business like a duck to water. English public-school men don't—they go into business because they are shoved in. They despise it; and they vow that when they have made enough money they will clear out as soon as may be." This is an extreme way of putting it, but it expresses a widespread sentiment; and yet manufacture and trade are even more fundamental social functions than—let us say—the lawyer's calling; upon them depends the prosperity of the masses of the people; and they are not a whit more selfish than some of the "professions." If they are despised it is not because they are money-making, but because they have not been made intellectually interesting. Yet they are as capable of being made intellectually interesting as most of "the professions." To be brought to realise the larger issues involved in business decisions; to understand the place a man's own undertaking occupies in an industry as a whole all over the world, and the relation of that industry to others; to be accustomed to weigh conflicting considerations for and against a particular policy; to get into the habit of following the larger movements of manufacturing progress and international trade, and to learn how to get oneself at the best accessible information—in foreign sources as well as English—surely this, if anything, will prevent business from being dull.

5. Another indication of the defects of the system—or rather the want of system—that has hitherto prevailed in this country is to be found in the common complaint on the part of the heads of great industrial enterprises that they are unable to obtain for their service anything like a sufficient supply of men capable of assisting them in the higher work of their business. Efficient executive officers can, perhaps, be promoted from the ranks; but men to whom may be delegated a share of responsibility in management can seldom be found among those who have been engaged all their lives in merely carrying out orders. It is because their previous training has not accustomed them to take a large view of the policy of a business as a whole, to reflect on the relation of its several parts, and to consider the movement of markets and the fluctuations of price as the results of general as well as special causes. This is where a survey of business problems such as a student should obtain in a course of higher commercial education ought to be of value, not so much as furnishing him with direct precedents as in fostering a certain habit of mind—assuming, of course, that he possesses a mind that can acquire the habit.

6. And, finally, it may be observed that a vague sense that something is desirable in the nature of special training is already widely diffused among business men, and shows itself in the attempts men of high commercial position often make to enable their own sons to "learn business." Apprenticeship to a merchant still survives in some places; but the apprentice can only acquaint himself thereby with the details of one particular occupation: it is very seldom that the principal cares to talk over with him the motives which determine his action. Some parents pay a premium to an accountant to allow their sons to have "the run of the office" for six months or a year. This may be a most valuable experience in some cases; but in most it must be very much of a chance how much the young man really learns; and it can never be so beneficial as a well-planned course of instruction over the whole field of accounting, such as may be devised in a Faculty of Commerce worthy of the name. Some, again, send their sons for a period of foreign travel. This again may be profitable; but it would be much more beneficial if the traveller took with him some preliminary knowledge of the industrial resources and organization and recent history of the country he visits. And, finally, some who make large use of machinery put their sons through part of an engineering course—an excellent policy, again, if the future work of their lives is to lie entirely on the *technical* side of business, but positively dangerous (when unbalanced by training in other directions) if they are to take in charge the *commercial* side of business. For it

Is a matter of common observation that the technical expert often cares more for the mechanical perfection of the process than for its commercial return. And if he thinks of the latter at all, he has usually little skill in estimating the relative importance of the commercial and administrative factors involved.

And the result is that many a business man will tell you that, in spite of the various plans adopted by his father in order to enable him to "gain experience," the first few years after he left school were practically wasted.

The curriculum which has been drawn up for the three years' course leading to the degree of Bachelor of Commerce in the University of Birmingham comprises studies which fall mostly into four main categories—(1) languages and history, (2) accounting, (3) applied science and business technique, (4) commerce. Those of the fourth group are intended to be the most characteristic feature of the Birmingham plan; but it will be convenient to consider them after something has been said of the other groups.

1. *Languages and History.*—The student, it will be presumed, has laid a fair foundation of general culture at school, and has reached the stage represented by the matriculation examination of the university (or the examinations which are accepted in lieu of it); but whatever history he may have read at school, it is hardly probable that he will know much of the history of his own time. Accordingly there is prescribed one course on the nineteenth-century history of Europe and America. Its purpose is to give the student some impression of the wide sweep of national movements during the last hundred years in his own country and abroad—of such phenomena as the French Revolution and its effects down to the present on French politics and society, of the rise of Prussia and the creation of the German Empire, of the union of Italy, the expansion of Russia, the establishment of the dual system of Austria-Hungary and its working, the American Civil War, and the like. This is intended to widen the student's outlook and mitigate his insularity; it is intended at the same time to show him the political motives which operate by the side of the purely economic motives in determining the policy of our neighbours, and to enable him to enter into more sympathetic personal relations with men of other countries, by a better appreciation of their national point of view.

It is very desirable that every student who proposes to take the whole course should bring with him an acquaintance with the rudiments of two modern languages; though for the present only one will be insisted upon at matriculation. But it is the intention of the University that no student shall receive the degree of Bachelor of Commerce who is not adequately equipped in two modern foreign languages—German, French, Spanish, or Italian—and to that end a whole series of classes has been arranged. A speaking knowledge of the languages will be aimed at from the first; and in the last year there will be courses in commercial correspondence. But that a business man should be able to carry on a foreign correspondence, or even that he should be able to travel abroad and come into personal touch with his foreign correspondents, desirable as these powers are, are relatively small matters. What is more desirable is that he should know where to get the best information in foreign languages on the things which ought to interest him in his business, and should be able to use his knowledge of the language to keep himself abreast of the industrial and financial movements. Accordingly, after the student has read a little of the classic literature of foreign countries—enough to give some insight into the sentiments and modes of thought of other peoples—his attention will be turned to the current industrial, commercial, financial, and statistical literature of the countries in question. He will be made acquainted with the chief economic and technical periodicals of other countries and the chief governmental publications; he will read selected articles and chapters and acquire the necessary vocabulary. The time ought not to be far distant when the library of every manufacturing town—and, indeed, of every really great undertaking—shall possess all the good current literature bearing on its particular interests in each of the chief languages of Europe, and when a man of business will be as much in the habit of casting his eye over the chief foreign periodicals as he is (or should be) over the *Economist* or *Engineering*. Much more in the way of description and analysis of industrial conditions in particular trades and localities, and that of high quality, is being produced by foreign economists than is at all realised in England. It is unknown to the English Board of Trade, and its trustworthiness and significance can only be gauged by those who are acquainted with the circles from which it proceeds.

Yet all this knowledge of foreign languages is in the main merely instrumental. It has been well remarked that "business men have no more use for a man who makes bad bargains in three languages than for one who makes all his bad bargains in English."

2. *Accounting.*—Birmingham will be the first English university to realise the importance and the educational value of proper training in this subject, and to appoint a professor to take it in charge. In giving accounting a place in a commercial curriculum it will only be following the example recently set by several of the greater American universities—by Harvard University and the Universities of Michigan and Wisconsin; and it proposes to use the term "accounting," which has come into common use in America, rather than "accountancy," to indicate that what it aims at is not so much the preparation of professional accountants for their future occupation (though it expects to do something in that direction), as to teach the ordinary business man the proper use and interpretation of accounts. The instruction, which will be put into the hands of an eminent practising accountant, will consist of three courses, one in each of the three years. The first will deal with the simpler systems of book-keeping as actually practised, with many concrete illustrations. The second will be much higher in character. It will begin with an explanation of the various forms of accounts adapted to different classes of undertakings, so as to enable a student to plan a set of books for a particular enterprise. It will then enter into the analysis of accounts with a view to the computation of earnings and values, examining for that purpose a number of published balance sheets. The third will be devoted in large measure to the consideration of departmental accounts, and to the advantages, requirements, and difficulties of cost

accounts. This is a matter to which the attention of business men is coming to be more and more directed; and it is believed that a properly qualified professor who will devote systematic attention to the subject will be in a position to give real assistance to the commercial community. It must be evident that courses such as the University proposes to offer will call throughout for the exercise of judgment and reasoning power on the part of students. The amount of dead technical information to be simply committed to memory will be comparatively small: the study as a whole will be an educational one in the best sense. The syllabus of instruction has been drawn up after consultation with a committee of the Birmingham and Midland Society of Chartered Accountants, headed by its president, Mr. Eric Carter; and the policy of the University has met with the warm approval of the president (Mr. Walter N. Fisher) and council of the National Institute of Chartered Accountants.

3. *Applied Science and Business Technique*.—The courses under this head will be so arranged as to allow of a very wide freedom of choice. All students in the Faculty will naturally take the course on commercial law. Those who are looking forward to mercantile pursuits will naturally take the courses which will be provided on the technique of trade (the organization of the staple markets, and leading commercial institutions), on money and banking, and on transport. This will be almost the first time that the problem of transport by land and by water, and the question of railway rates and freight charges as they affect both the carrier and the merchant, have been systematically treated in an English University. The subject is studied as a matter of course in every American and German University of the first rank.

The man who is looking forward to a manufacturing career will either take these courses, or he will substitute for them, or combine with them in varying degree, courses in applied science (with the preparatory courses in pure science wherever necessary). His choice of courses will depend upon his individual prospects, aptitudes, preparation, &c., and will be arrived at after consultation with the Dean of the Faculty. The greatest possible flexibility will be given to the regulations in this regard.

The purpose of these scientific subjects is not to make men scientific experts. Its aim is (a) to make their business more interesting to them; (b) to enable them to follow the general movement of technological progress, and to realise the directions in which changes of process are probable or possible; (c) to show them when they ought to call in an expert, and how much weight they should attach to his opinion. The fact is that, as the Director of the successful School of Commerce at the University of Wisconsin has justly remarked, "it requires nowadays a good deal of first-hand knowledge to make economical use of expert assistance."

Still, the conditions of business differ so much in different cases, and it would be so unwise in the case of many students to divert attention from the commercial to the technical side of undertakings, that there will be no sort of compulsion used in any direction. The inquiries of the Dean will be limited to discovering whether the student has thought about the matter, and has any sort of conscious purpose in his selection of studies.

For the other courses from which a selection may be made—those on geography (especially in its commercial relations), on public finance (including taxation and public debt), on the modern history and present institutions of the countries with which we come into commercial contact, on logic and ethics, and on general economic analysis—it will be sufficient to refer to the curriculum. There remains to be spoken of—

4. The courses of commerce, which will give their colour to the whole scheme of instruction. These in the first two years will be largely descriptive. They will seek to set forth the modern development and the present structure and position of industry and trade in the leading countries of the world. This will involve a consideration of geographical position and natural resources on the one side, and on the other side, of the supply and organization of capital and labour, and of the state of the mechanical arts; and the courses will lead up to a critical account of international commercial relations. The work of the first year will deal with the British Empire, with special reference to the colonies, that of the second with the United States, Germany, &c.

The Professor of Commerce has had experience of the successful working of courses of this character in Harvard University. It can hardly be doubted that a prime need of English businessmen is simply to know more of what is actually going on in the rest of the world. But it is hopeless to attempt to give this knowledge by way of what the Germans call *waarenkunde*, or by means of commercial geography, as that subject is generally taught. A study which appeals simply to the memory has little educational value, and the information cannot possibly be retained. The only practicable course is to select the dominant features of the situation in any country, and to bring them into organic connection with the whole social environment—the political traditions, the character of the population, the forms of business organization, as well as the climate and the physical resources.

The course on commerce in the third year will be of a different and far more difficult nature. It will be concerned with what may be called higher business policy—the discussion of those large questions of policy which confront a manufacturer or merchant in the course of his operations. They will necessarily be looked at from the point of view primarily of business efficiency and success; but it will be apparent that most of them, if not all, are of profound social interest.

The course will deal with such topics as the following: The Location of Works; Capitalisation; Production on Large and Small Scale; Differentiation and Consolidation of Manufactures; Combinations of Manufacturers or Merchants; Limited Companies (Private and Public), their Advantages and Disadvantages; Factoring and Manufacturing; Machinery, its Financial and Industrial Consequences; Works Management; Relations of Employer and Employed, Methods of Remunerations, Hours of Labour; Markets; Advertising; Relation of Selling-price to Cost; Fixed Charges; Methods of Sale and Purchase; Credit; Goodwill; and Trade Cycles.

It is not pretended for a moment that text-books exist on "commerce" so understood; or that any teacher, whether his experience has been academic or "practical," is now in a position to deal satisfactorily with all these topics. But a good deal more material, in the shape of recorded experience, exists than is commonly supposed, though it is scattered about in all sorts of repositories. It is the belief of the University of Birmingham that the subject can be taught to the great advantage of future business men. But the material must first be got together and codified; and supplemented by constant references to the current experience of the leaders of commerce in the neighbourhood; and the conclusions must be continually checked and corrected by reference to observed facts. It will be the main business of the Professor of Commerce so to arrange his work that a fair beginning may be made with this arduous but hopeful undertaking in 1904.

A training such as has been outlined above can only be profitable to students who have reached a certain maturity of mind and character. It is suitable, not for boys, but for young men who are beginning to take life seriously, and can make a wise selection of studies. Moreover, it implies a good preliminary general education. Accordingly—although all persons who are at all likely, in the opinion of the professors, to benefit by the instruction will be admitted to the several courses on the payment of the necessary fees, and will receive class certificates if they so desire—no students will be admitted to the University examinations and regarded as candidates for the degree of Bachelor of Commerce who have not been matriculated. They can matriculate on passing the Matriculation Examination of the University or on producing evidence of having passed one of the examinations accepted in lieu thereof (*e.g.*, the Higher Certificate of the Oxford or Cambridge Examination Board or the Oxford or Cambridge Senior Local Examination, or the Oxford and Cambridge Junior Local with honours in two subjects, provided that they have passed therein in the requisite subjects).

But students may be able to pass such examinations and yet be too immature to profitably enter upon the studies of the Faculty of Commerce. This is not altogether a matter of age; and therefore it is not proposed to set any age limit. But the University will reserve the right to postpone the admission of students who are evidently unable to benefit by the instruction offered. In such cases it may be well that the lad, after passing the Matriculation Examination, should be given a year's experience in a workshop or counting-house before he enters the University. He will then come to his commercial studies with a certain freshness of mind, with more knowledge of practical life and human character, and a more definite purpose. The same plan may be recommended in some cases to even older and comparatively mature students who look forward to entering a business in which some early practical experience is deemed desirable. But the need of such early experience is often exaggerated; and it is believed that difficulties of this kind, where they exist, may be overcome in large measure by a sensible use of the vacations, and, indeed, of the opportunities always present even in term-time in a great industrial centre like Birmingham. The vacations can also be used for foreign travel—which is likely to be considerably more beneficial after the student has learnt in the University courses what to look out for.

In creating a Faculty of Commerce the University of Birmingham makes its appeal in the first instance to the substantial business men of the country. What it offers is designed in the first place for their sons and relatives, most of whom are "going into business" in any case. They can perfectly well afford to send their sons for three years to college; they only need to be persuaded that the education they will receive there will make them better business men. But the curriculum ought to attract the sons of "professional men" also. And it ought to be the means of securing for commercial life some of that business ability which is latent in the artisan and other classes of the community and at present finds no outlet for lack of opportunity. It is hoped that, by and by, means will be found, by way of scholarships, to enable lads of ability, but limited means, to take the university course. It is probable that scholarships will be founded by Midland Chambers of Commerce: County Council scholarships are tenable in this as in other departments of the University: and where the scholarships attached to endowed secondary schools are not tenable at the newer universities, the restriction will doubtless soon be removed. Moreover, it would be better for a student to leave the University after part of the course in order to earn the means of continuing his studies, than to lose the training altogether. This is a common plan with American students.

The experiment is being watched with sympathetic interest by many of the commercial leaders of the Midlands. They cannot guarantee to find a position for every man who has scraped through the curriculum. But they are ready to regard with favour and to give fair opportunities to such graduates of the University as have shown intelligence and force of character. For men of this kind the University will furnish an avenue to the higher grades of business service such as has never existed before.

The University of Birmingham, 23rd April, 1902.

W. J. ASHLEY.

UNIVERSITY OF BIRMINGHAM.—CURRICULUM AND REGULATIONS FOR THE DEGREE OF BACHELOR OF COMMERCE.

FACULTY OF COMMERCE.

THE instruction provided by the Faculty of Commerce furnishes a systematic training, extending over a period of three years. It consists of courses of study of two kinds. Some deal with subjects which are primarily of concern to the future man of business, but which are nevertheless capable of being made the instruments of a true education. Others deal with subjects which have long been recognised as elements of liberal culture, and yet are peculiarly valuable for those who

are to be engaged in commerce and manufacture. While certain parts of the curriculum are believed to be serviceable for all classes of business men, and are prescribed for all students in the faculty, other parts are so arranged as to allow a large freedom of choice, in accordance with the prospects, interests, and aptitudes of the individual students.

Students who have been matriculated in the University, and have acquitted themselves with credit in the requisite class-work and examinations, will be entitled to the degree of Bachelor of Commerce. Students may matriculate on passing the Matriculation Examination of the University, or on producing evidence that they have passed one of the examinations which the University accepts in lieu thereof. A schedule of the exempting examinations is given in the Regulations for Matriculation.

The requirements in the several subjects of the Matriculation Examination are the same for all faculties, and (with the exception of those in Italian and Spanish for candidates who select those languages) will be found in the Regulations for Matriculation. The number of subjects is also the same; but the list from which selection can be made by students who propose to matriculate in the Faculty of Commerce is in some respects wider, in others narrower, than in the case of the other faculties.

Every candidate in the Faculty of Commerce must pass in five subjects before he is allowed the next University examination, viz. :—

(1.) English language, literature, and history.

(2.) Any two languages out of the following : French, German, Italian, Spanish, Latin.

[It is very desirable that students should enter upon their work in the Faculty of Commerce with an elementary knowledge of two modern foreign languages; but, for the present, Latin and one modern foreign language will be accepted for matriculation.]

(3.) Mathematics.

(4.) One science subject chosen from the following : mechanics, chemistry, physiography.

The character of the examinations in Italian and Spanish, when these languages are offered, will be the same as in French and German. For prepared work, either Bersezio, "Il Cane del Cieco" (Richter, Davos), or Silvio Pellico, "Le Mie Prigioni," may be offered in Italian, or Cervantes, "The Adventure of the Wooden Horse and Sancho Panza, Governor of Barataria" (Clarendon Press) in Spanish, or any other books of similar length and difficulty.

But although students will not be allowed the next University examination until they have passed in five subjects, they may be matriculated in the Faculty of Commerce on passing the Matriculation Examination in (1) English, (2) mathematics, (3) one of the prescribed languages, and (4) either a science or another language. The deficiency must subsequently be repaired by passing in the fifth subject.

Attention is called to the fact that there are other subjects, besides these examined upon at matriculation, which may advantageously be studied at school by boys looking forward to business pursuits. Thus skill in freehand and geometrical drawing will in many cases be found of practical advantage in after-life; and a knowledge of shorthand will be found especially useful by boys whose careers depend entirely on their own ability and exertions.

It is unwise for boys who desire a higher commercial education to leave school before they can pass the Matriculation Examination. And even after passing that examination, students may be too immature to benefit by a training which calls for the constant exercise of judgment. Accordingly, although no age limit will be set, and every case will be determined upon its merits, the Faculty of Commerce reserves the right of postponing the admission of students who appear insufficiently mature in mind and character to benefit by the instruction. Such students may be advised to spend a preliminary year in a workshop or counting-house. The same plan may properly be recommended in some cases to students who look forward to entering businesses in which early practical training is desirable.

Curriculum for the Degree of B. Com.

Candidates for this degree are required to have attended the following courses of study, and to have passed the University examinations thereon at the end of each of the three years. There will be a *viva voce* examination in foreign languages in each year; and also in such other subjects in the third and final examination as the examiners may determine. Candidates may offer themselves for the whole or any part of the examination in any year. The names of those who pass in each subject will be arranged in three classes, alphabetically in each; and the subjects taken by each student will be recorded on the degree *testamur*, with the class obtained in each. Only matriculated students will be admitted to University examinations (in which external examiners co-operate with the University staff). The class examinations, to which non-matriculated students will be admitted, will be conducted by the University staff alone, and the certificates will contain no distinction of classes. The content of the several courses will be learnt from the syllabuses which follow the curriculum; and (in the case of courses in modern languages and science) from those in the announcements of the Faculties of Arts and Science.

First Year.

1. Commerce I. Two papers.
2. Any two of the following modern languages : French, German, Spanish, Italian. Two papers in each.
3. Accounting I. One paper.
4. European history since the French Revolution. Two papers.
5. One of the following : (1) Mathematics, (2) Physics, (3) Chemistry. Or two of the following : (4) Geography, (5) Logic, (6) British institutions.

Languages.—The examination in French or German at the end of the first year will be the same as that for the Intermediate Examination in Arts. Students, therefore, who select either of these languages and are unable, from want of preparation, to benefit by the first University course, will begin with the preliminary course and will be expected to give a larger proportion of their attention to the language in which they are backward in order to make up the deficiency as rapidly as possible.

Provision will be made for instruction in Spanish or Italian. Students who wish to select these languages are requested to communicate with the Professor of Commerce a few days before the opening of the session.

Mathematics.—Either pure mathematics, Course I., or applied mathematics, Course I.

Physics and Chemistry.—The courses to be taken in these subjects by those students in the Faculty of Commerce who select them will be determined after consultation with the Professor of Commerce, upon consideration of the needs and purposes of the individual students. When the course arranged involves less expenditure of time on the part of the student than Physics I. or Chemistry I., supplementary work in other subjects will be required, and must be planned after consultation with the Professor of Commerce.

Geography.—See the syllabuses of the Faculty of Science.

Logic.—See the syllabuses of the Faculty of Arts.

For commerce, accounting, European history, and British institutions, see the syllabuses below.

Second Year.

1. Commerce II. Two papers.
2. Languages, as in the first year. Two papers in each.
3. Accounting II. One paper.
4. Public finance. One paper.
5. Economic analysis. One paper.
6. One of the following: (1) Mathematics, (2) physics, (3) engineering, (4) metallurgy; or two of the following: (5) Geography or geology, (6) ethics and social philosophy, (7) history and institutions of France, (8) history and institutions of Germany, (9) history and institutions of Spain and Spanish America.

Languages.—Students can in this year select only those languages on which they have passed the examinations of the previous year, or in which they can already show, to the satisfaction of the professor of the language, the same proficiency as is demanded at the First University Examination. The work in each language will include conversation, dictation, translation at sight, composition, and lectures on the history of literature. The books read will consist, in the earlier part of the session, of literary masterpieces; in the later part of the session, of typical examples of foreign, commercial, and industrial literature. The object of the course is to enable the student to keep abreast in future of commercial and industrial changes in other countries by consulting current foreign publications.

Mathematics.—Either pure mathematics, Course II., or applied mathematics, Courses I. or II.

Physics, Engineering, Metallurgy.—The courses to be taken in these subjects by those students who select them will be determined after consultation with the Dean of the Faculty of Commerce, upon consideration of the needs and purposes of the individual students.

Geography or Geology.—See the syllabuses of the Faculty of Science.

Ethics and Social Philosophy.—See the syllabuses of the Faculty of Arts.

History, &c., of France, Germany, and Spain.—These courses can only be selected by students who are taking the corresponding language courses, or have reached a proficiency in the corresponding languages equal to that required in the Second University Examination in the Faculty of Commerce.

For commerce, accounting, public finance, and economic analysis, see the syllabus below.

Third Year.

1. Commerce III. Two papers.
2. Languages, as in the previous years. One paper in each.
3. Accounting III. One paper.
4. Commercial law. One paper.
5. Transport. One paper.
6. Subjects involving six papers, selected from the following list:—
 - (1.) Technique of trade. Two papers.
 - (2.) Money, credit, banking, and international exchange. Two papers.
 - (3.) Methods of statistics. One paper.
 - (4.) Factory hygiene and legislation. One paper.
 - (5.) i., Physics; ii., chemistry; iii., engineering; iv., metallurgy; v., economic geology; vi., electro-technics; vii., brewing; viii., mining. Two subjects at most from this list.

Students looking forward to a specifically mercantile life are recommended to select the courses numbered (1) to (3) under 6. Those looking forward to a manufacturing career are recommended to take (4); and, after consideration of their capabilities and prospects, they may be wise in making a selection among the courses i. to viii. under (5). The details of this year's work will be announced later.

Languages.—The work in this year will deal with commercial correspondence; though in exceptional cases, with the consent of the Dean of the Faculty, the study of the literature of some particular branch of business in the languages selected (*e.g.* on engineering, mining, railway administration, municipal administration) may be substituted. Students will be allowed to select the course in commercial correspondence only in those languages in which they have reached the proficiency demanded at the First University Examination.

Scientific and Technical Subjects in (5).—The courses to be taken in these subjects by those students who select them will be determined after consultation with the Dean of the Faculty of Commerce. The purpose in this, as in the previous years, is to give the future man of business such a knowledge of the processes of manufacture as may be useful to one whose chief interest nevertheless is on the commercial side. Most of the courses mentioned under (5) are more definitely technical or professional than those in the previous years; but no student will be admitted to a course involving preliminary knowledge unless that knowledge has been previously acquired. The arrangements with the several professors in the Faculty of Science will be made through the Dean of the Faculty of Commerce.

Factory Hygiene and Legislation.—Particulars of this course will be announced later.

For commerce, accounting, commercial law, transport, technique of trade, money and banking, and methods of statistics, see the syllabus below.

Fees.

The composition fee for the whole curriculum will be £21 each year. This includes the membership fee of £1 1s.

Each of the classes in the Faculty of Commerce is open to all persons who are capable of taking advantage of the instruction offered, whether they have matriculated or not; and pass-certificates will be granted to non-matriculated students at the end of each session on the results of the class examinations.

The conditions of admission in the case of non-matriculated students are identical with those for similar students in the Faculties of Science and Arts. They include registration in the Secretary's office, the payment of a variable membership fee (*e.g.*, for a single course running through the whole session, 10s. 6d.), and the payment of fees for the particular courses selected (given below with the several syllabuses).

But although only students who have been matriculated can become candidates for the degree of Bachelor of Commerce, non-matriculated students can at any time qualify for the degree by passing the Matriculation and other University Examinations, without further attendance upon courses already taken by them; provided that, before receiving the degree, they have attended all the required courses, and have devoted to study within the University an amount of time equivalent to three continuous years.

SYLLABUSES OF COURSES.

COMMERCE AND PUBLIC FINANCE.

Professor: W. J. ASHLEY, M.A., late Fellow of Lincoln College, Oxford. *Lecturer:*

Commerce.—Courses I. and II.

I.—FIRST YEAR: The British Empire, with particular regard to existing circumstances in the colonies and dependencies.

Two hours weekly, by arrangement. Fee, £4 4s.

II.—SECOND YEAR: The United States, Germany, Russia, France, other European countries, South Africa, &c. Fee, £4 4s.

These courses will set forth the modern development and the present structure and position of industry and trade in the leading countries of the world. This will involve a consideration of geographical position and natural resources on the one side, and, on the other side, of the supply and organization of capital and labour, and of the state of the mechanical arts; and the courses will lead up to a critical account of international commercial relations.

Commercial history and commercial geography will be largely introduced; but they will be treated in relation to one another, and in close connection with the discussion of the problems of the present.

Course III.

THIRD YEAR: Business policy, in its main principles, as indicated by industrial and commercial experience. Fee, £5 5s.

The course will deal with such topics as the following: The location of works; capitalisation; production on large and small scale; differentiation and consolidation of manufactures; combinations of manufacturers or merchants; limited companies, private and public, their advantages and disadvantages; factoring and manufacturing; machinery, its financial and industrial consequences; works management; relations of employers and employed, methods of remunerations, hours of labour; markets; advertising; relation of selling-price to cost, fixed charges; methods of sale and purchase; credit; goodwill; and trade cycles.

Public Finance.—Second Year.

Fee, £1 11s. 6d.

This course will treat of public expenditure, public revenue, and public credit, as illustrated especially in the national, county, and municipal experience of Great Britain. It will discuss the principles and methods of taxation, and the methods of contracting and extinguishing debt; and it will include a comparison with foreign systems of raising revenue.

Students will examine the last British Budget, and will read a number of the more important Budget speeches of recent decades.

The course is recommended to students who propose to enter, or are already engaged in, municipal or banking service.

Transport.—Third Year.

Fee, £1 11s. 6d.

The course will give an outline survey of the various means of transportation, with a more particular treatment of railways—their development and organization. The forces influencing railway rates will be considered, and the attempts of various governments to control or manage railways will be explained and criticised. Some attention will be given to ocean freights; as well as to canals and other means of internal communication.

Technique of Trade.—Third Year.

Fee, £4 4s.

This course will deal with the organisation of the great staple markets and commercial institutions at home and abroad, the chief technical terms, and the most important mercantile documents. It will not seek to reproduce the minutiae of counting house practice.

Money and Banking.—Third Year.

Fee, £1 11s. 6d.

The functions and forms of money; credit instruments and their use; the functions of banking and the organization of the English banking system as compared with those of the United States and Germany; the money market; and the phenomena of international exchange.

Statistics.—Third Year.

Fee, £1 11s. 6d.

The course is intended to serve as an exposition of the statistical methods most commonly employed rather than as a description of mere results. The chief governmental statistics of Great Britain, dealing with trade and manufactures, will be examined; and an attempt will be made to indicate, after a consideration of the mechanism for securing information employed in each case, the extent to which the results are of value, and the way in which they might be rendered more serviceable.

Economic Analysis.—Second Year.

Fee, £1 11s. 6d.

This course will take a rapid survey of the whole of the wealth-producing and wealth-distributing activity of society. It will seek to disentangle the larger forces at work, to direct attention to the complex relations of cause and effect, and to indicate the general causes and criteria of national prosperity. It will thus supplement the courses on commerce by (1) emphasizing the general considerations only incidentally touched upon therein, and (2) connecting commerce with other sides of national life.

HISTORY.

Professor :

European History.—First Year.

Two hours weekly, by arrangement. Fee, £2 12s. 6d.

This course will present the broad outlines of the political and constitutional history of Europe and America. Its object is to assist the student to realise the forces which have been at work in shaping the present condition of western society, and to realise the motives (other than those primarily economic) which now influence the policies of contemporary statesmen and Parliaments.

British Institutions.—First Year.

Two hours weekly, by arrangement. Fee, £2 12s. 6d.

In this course an account will be given of all the more important parts of the governmental machinery of the British Empire; first of Great Britain and Ireland, from the Parish Council up through the District, Borough, and County Councils to Parliament itself, together with the Judiciary and the central Executive Departments; then of the chief self-governing daughter peoples—Canada, Australia, South Africa; then of the Crown Colonies and India; and finally of the Privy Council and other Imperial institutions.

ACCOUNTING.

Professor :

Course I.—First Year.

Monday, 5.30 to 6.30. Fee, £1 11s. 6d.

Instruction in simple systems of book-keeping, explaining the meaning of "debit" and "credit" and the principle of double entry, and wherein it differs from single entry. This course will comprise a description of all usual subsidiary books, leading up to the account books proper. Such instruction will include an explanation of the trial balance, the balance sheet and trade account, and the meaning of "capital" and "revenue," and other terms used in book-keeping and accounts.

A few lectures will be given on the theory of compound interest, annuities, and sinking funds, together with an explanation of the construction and use of interest, annuity, life, and sinking fund tables. Opportunity will also be taken in connection with this course to give some training in rapid arithmetical methods.

Course II.—Second Year.

Fee, £3 3s.

This course will begin with a further explanation of the technique of accounting. This will include: (1.) A description of the various forms of books suitable for different requirements, with an explanation of the sectional balancing of books. (2.) An outline of the forms of books and accounts adapted to different classes of undertakings such as banks, public authorities,

gasworks, shipping companies, railways, tramways, collieries, breweries, manufacturers, merchants, &c. (3.) A description of the books and forms required in connection with the share capital, mortgages, and debentures of joint stock companies, and examples of partnership accounts.

This will be followed by an explanation of—

- (1.) Executorship accounts, including probate and residuary accounts ;
- (2.) Bankruptcy, liquidation, and receivership accounts ;
- (3.) The preparation of accounts for income tax returns and appeals.

To this will be added a consideration of the checks and arrangements necessary to insure accuracy in account-books and the verification of accounts ; and a description will be given of office and works staff and organization so far as is necessary to make the methods of book-keeping properly intelligible.

Students may be exempted, with the consent of the Dean of the Faculty, from such parts of this course as are too special or technical for their individual requirements ; and a choice of questions will be allowed in the examination.

After this study of the mechanism of accounting, the work of the course will be directed to its higher purpose—to give students a grasp of principles which shall enable them to comprehend the significance of accounts, and understand the process by which the earnings and values of industrial properties are computed. This will include an analysis of receipts, disbursements, assets and liabilities, in various kinds of industry, and a consideration of depreciation and appreciation of stock and equipment, interest, and sinking funds, reserve fund, reserves, gross and net profit, working capital, and goodwill, with an elementary treatment of costing and cost accounts. A number of published balance-sheets will be studied, and students will be set exercises in their interpretation.

Course III.—Third Year.

Fee, £4 4s.

The course will begin with a discussion of statistical accounts, and of head office and branch accounts, and a consideration of systems for centralizing the book-keeping of branches.

But it will be mainly devoted to a consideration of departmental book-keeping and accounts, stock and store accounts, and advanced costing and cost accounts, suitable for various undertakings.

Attention will be called to the several possible systems of costing, and the merit and weaknesses of each ; the several circumstances to be borne in mind in various typical businesses when constructing a system ; and the necessary limitations of cost accounts.

COMMERCIAL LAW.

Professor :

Third Year.

Fee, £3 8s.

Contracts ; partnership and company law ; bankruptcy ; the law of cheques and bills of exchange.

Approximate Cost of Paper.—Preparation, not given ; printing (1,678 copies), £7.

By Authority : JOHN MACKAY, Government Printer, Wellington.—1902.

Price 6d.]

