



جيمس مودرن أكاديمي
GEMS Modern Academy



International Baccalaureate Subjects

Making the Right Choices:

A Guide for Parents and Students

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Introduction

This booklet is designed to help both students and parents when making decisions on choosing the courses to study in their IB Programmes at GEMS Modern Academy. It should be read in conjunction with the GEMS Modern Academy International Baccalaureate Curriculum Information Booklet.

At GEMS Modern Academy we offer two pathways of study from the International Baccalaureate Organisation (IBO) for students.

- **The IB Diploma Programme (IBDP)**

An academically challenging and balanced programme of education with final examinations in six subjects and an additional 'Core' programme of study (TOK, CAS, EE), that prepares students for success at university and life beyond.

- **The IB Diploma Courses**

A programme in which students take only particular Diploma Programme courses (subjects) and also some parts of the 'Core' of the Diploma Course (TOK, CAS and EE), that provides students with the qualifications to access university via two pathways:

- Foundation year prior to undergraduate degree
- Pathway year – direct to second year undergraduate degree

The advice in this booklet must be used alongside a variety of other sources when making decisions; from the school Careers Counsellor to actual university websites and registrars. It is for indicative purposes only. Please be aware that universities may change their entry requirements from year to year and so all entry requirements should be checked at the time of application.

The aim of this document is to promote discussion and excite students so that they are aware of the possibilities that await them in the future, no matter which pathway they choose.

A GENERAL ADVICE

There are many factors you should take into account when considering your IB choices, so many, that it is probably best to start by stating what factors should NOT come into the equation:

You should not:

1. Choose a subject because your best friend is going to do it or someone else has convinced you to. Try to insulate yourself from peer group pressure and be conscious that what is popular and fashionable may not be suitable for you. Studying different subjects from your friends will not mean that you never see them.
2. Choose a subject because you like the teacher. Many subjects have more than one teacher and just as students leave school every year to go to a new school, some teachers may leave at the end of the academic year.
3. Think that because you have enjoyed a subject or are good at it at ICSE level that you will inevitably continue to do so at IB. These subjects may be very different in content and in the way they are taught and learned at IB. Ask questions and do your research before choosing.
4. Be afraid to consider a subject new to you (e.g. Computer Science, Environmental Systems and Societies, Psychology, History, Spanish). It may give you a new lease of life and you may enjoy the freshness of a new subject.
5. Choose subjects solely as a means to an end, i.e. entry to university. IB education is about intellectual growth first, perceived value and use second.

You should:

1. Consult relevant teachers, the Careers Counsellor, the DP Coordinator and Assistant Coordinator, making specific use of the GMA IB Information Booklet. This details the content and nature of all IB subjects. Keep an open mind at all times and do not exclude any subject until you have learned as much about it as possible.

The IB Team at GMA

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2. Discuss the suitability of your ideas with the DP Coordinators and make use of the CAT 4 testing results. Both sources will be able to offer you valuable advice in indicating how much a subject is suited to your particular aptitudes and skills.
3. Try to achieve a sensible blend of IB subjects offering you both the greatest stimulus and flexibility, especially if your mind is still open about your choice of university course and career. Find out what options your proposed IB subject choices will give you for your later career (see section B).
4. Be aware that university admissions selectors often are looking for a strong performance at ICSE, especially for entry to high demand courses at popular universities.
5. If you are realistically likely to gain mostly 95%+ grades at ICSE and top grades at IB, you may wish to apply to an Oxbridge College or an Ivy League University. Discuss this carefully with the DP Coordinators and the Careers Counsellor as this may affect the subject choices

you make. This is essential as such universities are more specialised in their academic requirements in comparison to other higher education establishments.

6. If you have few or no career ideas as yet, do not worry. This is not unusual for a student your age. In fact, it means you can choose subjects which you find stimulating, interesting and enjoyable, while still keeping all of your university options open. The breadth of the IB programme is designed to allow exploration of multiple academic areas. Therefore, by its very nature it means that you can decide a little later about your future university pathway. If you choose subjects that you are not interested in, then you will find it hard to be motivated and achieve good grades.
7. In any case, you should try to keep open as many options as possible. Your choice of IB subjects will have implications for your university options and your future career. The information that follows is to make you aware of what these implications are.

SUMMARY

In order to arrive at the right choice of IB subjects, you must balance three important factors:

- **your academic strengths and interests**
- **your personal abilities and aptitudes**
- **the implications of your choice for higher education and a career**

B IBDP CHOICES AND ENTRY TO UNIVERSITY

B1 Sciences at University

In their attempt to attract more applicants, some Science departments at universities have tried to keep their conditions of entry relatively low, but popular universities do ask for higher grades. If you wish to avoid an extra (foundation) year, the qualifications needed to enter higher education courses in the Sciences are more stringent than in the Arts or the Social Sciences, so your choice of IB subjects needs very careful consideration.

A Quick Overview:

University Course	Essential IB Subjects	Recommended IB Subjects
Biology, Zoology, Botany	Chemistry HL	Biology HL
Engineering	Physics HL, Maths HL, For Petroleum or Chemical Engineering, Chemistry HL	Some departments will accept SL Maths if other grades are excellent
Physics	Physics HL, some universities require Maths HL	
Medicine	Chemistry HL, some medical programmes require Biology HL	Physics HL/SL, Maths HL/SL
Veterinary Science	Maths HL, Chemistry HL, Biology HL	

B2 Humanities at University

For some single honours Humanities courses at university, a Higher Level in the same subject is not a precondition of entry. For example, you may read History at some universities without having done it at Higher Level. However, if you think that you may wish to read a single Humanities subject at university, it is strongly recommended that you study it at Higher Level. (See section B5 for more information)

B3 Languages at University

The conditions of entry to Language courses are generally more precise. For a standard Modern Languages course involving a mainstream language (e.g. French or German), you should study at least one language at HL. In short, if you are considering Languages at university, do at least one language at Higher Level. Many university language course, e.g. Cambridge, permit the entrant to learn another new language *ab initio* (from scratch).

B4 Social Sciences at University

Entry to the Social Sciences (Politics, Psychology, Sociology, Economics, Business Studies, etc.) can be very flexible provided applicants have a strong ICSE performance and are predicted high grades at the IB level. The absence of any preconditions contributes to the intense competition for entry to many of these courses.

Most high-demand Economics departments look for a high grade in Higher Level Mathematics, while some others are content with either Standard Level Mathematics.

For some Psychology courses, a Science or Higher Level Mathematics is needed. In others, these options will always be advantageous.

For those applying for a Business Studies course, there are often no entry prerequisites involving Higher Level subjects. There is also no evidence that someone who has taken the Business and Management subject at the IB level has an advantage. However, evidence of mathematical competence is desirable.

Anyone considering courses at the London School of Economics (LSE) should check the Mathematics requirements carefully. Most courses at this institution require top grades in Higher Level Mathematics and require a very high level of mathematical capability.

B5 The Balancing Act of IB Subject Choices

Access to higher education is, with some notable exceptions, broader than it used to be. Many different combinations of IB subjects can help you gain entry to a wide variety of university courses. However, students must be aware that there is a limit to how much you can mix and match your IB subjects without falling between categories and disqualifying yourself from certain higher education courses, especially in the Sciences.

B6 IB and University Entrance

Universities in the UK

Universities generally give a conditional offer to a student based on their predicted IB score from the school. While offers do vary, they are usually in one of the following four forms:

1. Higher Level points requirements. For example Higher Level points scores of 6, 6, and 6.
2. An overall IB points score and details of points required at Higher Level. For example, a total of 34 points with 6, 6, 5 at Higher Level.
3. An overall points score with a specific points score in one subject. This is most common when the IB subject is directly relevant to the degree course. For example, 34 points with a 6, or even a 7, in English for someone applying to read English at a popular university.
4. A total points score out of 45. This means applicants for highly competitive courses should not underestimate the importance of the Standard Level subjects.

The IB is recognised as offering a broad education and is especially attractive to someone wishing to study Mathematics, English, a foreign language and a Science. However, it is rare for someone to read a subject at university because of their performance in the same subject at Standard Level. Also, a Standard Level Science subject may not be sufficient to qualify for entrance to university for the same Science course.

There is no doubt that the IB is an attractive qualification to university Admissions Tutors, not only because of its unique curriculum. They may also become increasingly attracted to the qualification because there has been no grade inflation, as has occurred in rival qualifications. In general, they applaud the principle of the rounded education that the IB offers and believe that students who achieve the IB Diploma are likely to be more resourceful, independent and successful in the next stage of their academic careers.

Universities in the USA

The IB Diploma is very highly regarded in the USA as excellent preparation for the broad range of degree programmes on offer. Students will need to take SATs at an authorised assessment centre, prior to the start Grade 12.

The SAT 1 must be taken by everybody applying to the USA (with a few exceptions in relation to students applying for Arts and creative courses where portfolio work is required as an alternative to SAT scores). The SAT 2 Subject tests must be taken for students applying to universities that require the subject SAT 2. Information on whether this is required can be found on each individual university admissions webpage. As a general rule, if the University places highly in its rankings, then it is likely that the SAT 2 will be a requirement.

In addition, students applying to the USA must take part in an extensive spectrum of extracurricular activities to have the best chance of obtaining a place. IB students are at a significant advantage when detailing their activities as many have been involved in a broad range of activities by completing their CAS core requirement.

B7 Entrance Standards to University

These are governed not so much by the academic standards required for entry to courses, but by the level of demand for them. The higher the demand, the stiffer the entry requirements become. Any generalisations made here should be recognised as such, and careful note needs to be made of the exceptions, e.g. all courses for Oxford and Cambridge.

Popular and prestigious universities have developed high standards of entry across the full range of their courses. Conversely, those universities that are not in the premier league are finding it more difficult to recruit students across all subjects, so their entrance standards are lower. In the very competitive market of league tables and top-up fees, a small group of elite universities has emerged, attracting research funding and blessed with excellent resources. While entrance to the rest is less challenging, it does not mean that the quality of education, and employment prospects are correspondingly lower.

B8 Oxbridge

- If you have done ICSE, Oxbridge would expect you to achieve good grades, such as mostly 90% or 95%, in all your subjects, especially those directly relevant to your chosen degree course.
- For entry to Cambridge to read Maths, Computer Science or Engineering, students should consult the Mathematics department about taking an extra course in Mathematics as an additional certificate of the IB.
- If you are considering reading Economics at Cambridge or Economics and Management at Oxford you must take Mathematics at Higher Level; Economics Higher Level is not essential.
- If you are considering reading Oxbridge Medicine, you must choose Chemistry and are advised to choose Biology at Higher Level (see section B1 for recommended subject combinations). At least SL Maths is also required. Prospective students of Veterinary Medicine should take Chemistry, Biology and Mathematics at HL.
- For Biological Sciences and Biochemistry you must take Biology and Chemistry at IB Higher Level; it is recommended you also take Higher Level Maths. The Mathematics Standard Level

option is less advantageous but sufficient, provided students are willing to take an extra Mathematics course in the first year of a degree.

- If you are considering reading Natural Sciences (Physical) at Cambridge or Physics or Chemistry at Oxford you must take Maths and two sciences at the Higher, and not Standard Level.

Grade predictions (made at the start of Grade 12) for Oxbridge must be high, generally in excess of 40 points. It has to be emphasised that even then, such predictions are by no means a guarantee that a conditional offer will be forthcoming:

Standard offer for Sciences:	IB Higher	HL Levels of 776 or 766 with overall points score at least 40 points with a 7 in Maths HL for Maths or Engineering
Standard offer for Humanities:	IB Higher	HL Levels of 776 or 766 with overall points score at least 39 points

Some preparation for Oxbridge applicants is necessary in the summer holidays between Grades 11 and 12.

Those contemplating Oxbridge must develop an interest in, and recognise the value of academic study for its own sake, and not view admission solely as a means of establishing a good job thereafter.

Additional examinations in the Summer Term of Grade 12, set by the Cambridge Colleges and known as STEP are now only required of pupils seeking entrance to read Mathematics.

However, in an effort to distinguish between an ever increasing number of equally qualified applicants, Oxbridge colleges have introduced external and internal tests for certain subjects, such as BMAT, LNAT (for Law), Thinking Skills Assessments (Cambridge) and tests for History, English, PPE, PPP, Exp. Psychology, Computer Science and Maths and Physics (Oxford).

B9 Diploma Courses and University



Many universities across the world recognise single DP courses as a valid prerequisite for study at Higher Education. Students who choose this option will be carefully guided to choose subjects that allow access to Higher Education at the end of Grade 12 (IB Year 2).

Students will be given specific advice at interview so that they choose appropriate courses.

Students not enrolled on the full Diploma Programme choose to take only particular DP courses (subjects) and also some parts of the 'Core' of the Diploma Course (TOK, CAS and EE).

Some students will start on the Courses Programme and their progress will be carefully monitored in the first term of study. If they show good progress, and points scores indicate that they will meet the Diploma Programme pass requirements they will have the option of moving to the Diploma Programme before December of Grade 11. This change of course is at the discretion of the IB Diploma Coordinator and is suitable for students with an outstanding work ethic. These students will need to follow the general advice for choosing IBDP subjects already discussed in this booklet as well as follow the full Core requirements of the Diploma Programme until any decisions are made.

The IB Diploma Courses route provide access to many universities worldwide including the UK, USA and Canada through Pathway or Foundation courses. Universities generally consider each case individually, so it is worth exploring options, contacting universities and speaking to teachers and counsellors. Many DP Courses candidates have attended universities in all three of these countries, received multiple offers in many cases. If you have any specific queries regarding Diploma Courses and future university options please see the career counseling department.

C OTHER FACTORS TO CONSIDER

C1 IB Subjects and Entry into the Professions

Subject enthusiasts may mislead you into claiming their subject is essential for entry into a particular profession, e.g. History HL is essential for Law. It is not! Any subject combination including the Sciences but excluding Arts will do for Law. But, note the high standards of entry. You may also hear that journalists need English HL - but you do not have to do any Humanities subjects at HL to do Journalism or Media Studies as a degree course.

Surprisingly few careers require specific IBDP subjects outside medical, technical and scientific careers.

Rumours frequently circulate that certain IB subjects are not looked on by universities with as much respect as others. The subjects we offer for IB are given equal respect by the universities, so the question of how your choice of subject is valued by the university should not be a factor to consider when making your choices. **Clarification should be sought if you are still concerned.**

C2 Degree Choice and the Job Market

The economic climate is the most important criterion in influencing the prospects of graduates gaining employment after university. As more young people emerge from universities with degrees, the job market for graduates is increasingly competitive.

Someone not completing a degree or the equivalent would appear at a distinct disadvantage. In general, what many employers are looking for is not graduates with specific subject disciplines. They value those who have learned, through their degree courses, the transferable skills which can be adapted and applied to the type of work they will be doing.

Also, given that the majority make job offers to would-be graduates before their degree results are published, the quality of the applicant's previous exam results must be an important consideration in their minds when assessing job applications. **This underlines the importance of choosing the right IB subjects, i.e. those that would both stimulate and motivate you, so that the best possible results are achieved.**

Employers may look at academic status first and foremost, but there is also evidence to suggest they are interested in an applicant who is well educated in the broadest sense. Personality, work experience, extra-curricular activities, IT skills, business awareness, confidence in a foreign language, interests and achievements are all important to develop and maintain while at university. It is advantageous to have good documentation of such activities for entry to the most highly competitive colleges in the USA. This should not only list participation, but explain the outcomes, length of time, commitment and depth of experience gained. Colleges in the USA are also keen to find evidence of leadership in sports or extracurricular experience in general.

C3 Limits to your Choice

The school timetable and the awarding body (exam board) places limits on your choice of combinations of IBDP. For the IB Diploma and Diploma Courses programmes, note that you must study English (Group 1), a foreign language (Group 2), a humanities subject (Group 3), a Science, (Group 4), and Mathematics (Group 5). You may choose the sixth subject from the Arts (Group 6) **or** Group 3 or 4. This enables students to study more than one science or more than one humanities subject.

C4 Journalism

Employees in the media/journalism world do not necessarily look for degree courses in Journalism or Media Studies. They often prefer someone to do a conventional academic degree and expect a media commitment to be revealed by the applicant's co-curricular involvement. Budding journalists should start to compile a portfolio of evidence, in the form of articles for newspapers and magazines and periods of work experience with local or national papers, as proof of their commitment to the career. Employers are looking for drive, initiative and an appetite for hard work, essential qualities for their profession. Those who take the initiative early are likely to gain entry to this very competitive career, which is not perhaps as glamorous as some teenagers are led to believe.

C5 Work Experience

Entry to university professional courses (e.g. Medicine, Media Studies, Law, Accountancy, and Architecture) is the most competitive of all. In order for an application to stand out, work experience in the chosen area of study is essential; it could make the difference between receiving a conditional offer and not. Many colleges in the USA use evidence of at least two summers of work experience as exemplifying long-term co-curricular commitment to a subject. Thus, students seeking to study biomedical subjects, for example, would be well advised to develop laboratory experience prior to entering Grade 12.

D USEFUL REFERENCE MATERIAL

The following is list of useful websites for information on careers and further education options:

<http://www.ucas.com> – The UCAS website

<http://www.kent.ac.uk/careers>

<http://www.direct.gov.uk/.../YoungPeople/Workandcareers/index.html>

<http://www.ucas.com/> <http://www.collegeboard.com>

<http://www.guardian.co.uk/education>

<http://www.topuniversities.com/university-rankings>

<http://www.timeshighereducation.co.uk/world-university-rankings>

<http://www.uac.edu.au/> <http://www.unistats.com>

<http://www.commonapp.org> <http://www.scholarship-search.org.uk>

<http://www.usastudyguide.com>

<http://www.studential.com> <http://www.studysa.co.za>

<http://www.studiesinaustralia.com>

E A ROUGH GUIDE TO SENSIBLE IB DP COMBINATIONS

These guidelines are a rough guide to making choices and should always be read alongside specific university admissions information.

University Course or Career	Suggested subjects for <u>IB Higher Level</u>	Notes
Accountancy	Maths, and Business and Management or Economics with one other, but any combination is permitted	An accountancy degree course provides exemption from foundation accountancy exams but is not necessary to enter the profession
Advertising	Either Economics, Business Studies, Geography, History or Art could be useful	Very fast moving, competitive and potentially profession
Actuarial Work	Maths and more Maths	Actuarial Science courses available necessary to enter the profession. They and some Maths degrees give exemption from some exams
Administration, the Civil Service	Almost any combination but subjects could include History, English, Economics, Geography and a language (2 languages for diplomatic work) or a science for a scientific branch career	Good class of degree needed to enter the Diplomatic Service, which has a very competitive entry procedure.
Agriculture, Agricultural Research, Land Surveyor	Biology, Chemistry and / or Physics, Geography	
Architecture	Art is not vital (though UCL expects it), but drawing experience and skills are necessary. Maths is very useful, English, modern languages and Physics are also helpful, as is History	Must have ICSE Maths and the majority of universities require the submission of a portfolio.

Banking, Finance, Insurance	Business Studies or Economics, Maths; a language very useful	Finance and Banking degrees are available but they are not mandatory for a career in this area.
Business Studies	GCSE Maths is essential and IB HL or SL Maths is advantageous, a second language is also of benefit	More universities are now offering combined Business Studies programmes, particularly Business and a Language, therefore for some courses a second language at HL is a condition of entry.
Chartered Surveyor	Geography, Maths, History or Geography, Maths, Economics, or Geography, Maths, Art and Design.	
Chemistry	Chemistry, Maths, Physics or Biology	Oxbridge applicants should have Maths HL
Chemical Engineering	Chemistry, Physics and Maths	Most university courses are now four years and are sandwich type.
Computer Science, Statistics, Numerical Analysis	Maths, Physics and a second Science	Good HL Grades required for applications to popular degree programmes
Engineering	Physics and Maths essential, Chemistry essential for Petroleum or chemical engineering	Maths HL is expected for Oxbridge / Ivy League entry.
English, Drama, English and Drama	English and a Foreign or Classical Language, History	Single honours English is always harder to gain entry to than English combined with another subject. Drama is even more competitive and a record of involvement in Theatre is essential.
Fine Art	Art, English or any combination	Completion of foundation course is a precondition of entry to most UK universities

Geography (art emphasis)	Geography, History, Economics, Business Studies, Language or a Science	Slightly higher entry standards for Geography BA than for Geography BSc degree courses.
Geography (science emphasis)	Geography, Maths, Biology, Chemistry, Physics	A wide variety of careers available with a Geography degree
History	History, Language, English or Economics	A HL Language is helpful especially for the top universities, there is a variety of careers available with a history degree.
History of Art	History, Art, English or a language	
Law	Any combination of subjects including Maths, Language, English, History or Economics. For Patent law add a science. Art is not recommended as an entry qualification for Law	Certain universities require students to sit the LNAT as well as complete IB or A Levels
Leisure Industry, Sports Studies, Sports Science	Business Studies or Economics and either Chemistry or Biology or both	Competitive entry and there must be a record of commitment and success in sport, this is very important.
Management Studies, Management Science	Maths, Economics or Business Studies	Courses at university may overlap greatly in content with Business Studies degrees.
Materials Science, Metallurgy	Chemistry, Physics, Maths and Design is useful	
Maths, Maths with Physics, Theoretical Physics	Maths, Physics and a second Science	Maths at HL especially for Oxbridge / IVY Leagues

Media and Communication Studies	English and a Language	Successful entry into very competitive job market of journalism and broadcasting cannot be guaranteed with this degree. Work experience in this area is essential.
Medicine, Veterinary Science, Dentistry	Chemistry is essential and Biology or Physics. Medical schools like a non-science as a third subject.	The minimum standard entry varies but is always high and requires outstanding ICSE grades as well as IB grades that are excellent. For Medicine, entry also depends upon the successful completion of a face to face interview.

SOME OF THE ENTRY TESTS STUDENTS HAVE TO TAKE WHEN APPLYING TO UNIVERSITY

- BMAT – BioMedical Admissions Tests
- ELAT - English Literature
- HAT – History Aptitude Test
- HPAT – Health Professionals Admissions Test
- LNAT - The National Admissions Test for Law
- MML - Modern & Medieval Languages Test
- STEP - Sixth Term Examination Papers
- TSA - Thinking Skills Assessment
- UKCAT - UK Clinical Aptitude Test
- SAT – A standardised test widely used for college admissions in the United States
- ACT – A standardized test for high school achievement and college admissions in the United States produced by ACT,



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