

Education Advisers eGuide



**Choosing A-Level
Subjects for
University Degrees & Careers**

CHOOSING A-LEVEL SUBJECTS FOR YOUR DEGREE

INTRODUCTION

The purpose of this guide is to assist students in making their choice of A Levels only as they enter Year 12 (or first year Sixth Form). It concentrates on a process for subject choice which needs to be undertaken to enter University for a specific degree or, looking further ahead, an intended career after graduation. We have tried to keep it reasonably concise. For those wanting to obtain more detail we recommend the following books:

University Degree Course Offers 2021 - Brian Heap

Choosing Your Degree Course and University - Brian Heap

The Sunday Times Good University Guide 2012

There is also further information on our website - www.universityadvice.co.uk

In the first section of this eGuide we describe how A Levels are examined and the process you can use to select your portfolio of subjects. In Appendix A we get down to specific details of course requirements for the most common degree courses. Appendix B lists the twelve most popular A Level subjects taken in 2020 and says something about them.

HOW A-LEVELS WORK

One of the great strengths of the English educational system is that it gives students the opportunity to specialise in the subjects of their choice at A-Level. In most other countries in the world students have to go through a lengthy general education and it is only when they go to university that they get the opportunity to specialise in the subjects they really care about.

The way A-Levels are structured means that students are able to receive the intellectual challenge and stimulation of studying a few subjects in depth before they go to university. In this respect A-Levels are very much a real preparation for the academic rigour and demands of university life. This also allows students to back their strengths and to concentrate on what they are good at.

Over the years there has been considerable debate about the suitability and quality of A Levels as a basis for entry to university. There are other post - 16 qualifications that can be taken, most notably the International Baccalaureate and also BTEC Diplomas, but A-Level has remained the gold standard and in the UK the most widely used measure of ability for university admission.

From 2017 onwards there took place a radical reform of the A-Level system and today students sit all their exams at the end of two years of study instead of taking modular exams throughout the course. In addition AS-Level results no longer count towards A-Level grades, coursework may not have more than a 20% coursework component and for most subjects assessment would be entirely based on exams taken at the end of the final year. A number of A-Level subjects have been scrapped and the aim of the reformers has been to make A-Levels more robust, to prevent grade inflation and to make the whole system more fit for purpose .

HOW TO CHOOSE AN A-LEVEL PROGRAMME

Choosing the subjects to make up your A-Level portfolio needs time and thought and like all decision-making you will probably need to get the balance right between a number of different and possibly opposed criteria. It is important that you have a plan of action to help you make up your mind and the following guidelines should help you to do this by outlining the subject requirements for degree courses that you might be thinking of applying for.

- First and foremost, you should choose subjects that interest you and that you know you will enjoy. You might call this 'gut feeling', but it is as good a guide as any, quite simply because you will be strongly committed to subjects that you like and therefore more likely to do well.
- Secondly, the subjects of your choice must suit your own particular strengths. You should run through a self-analysis check list such as, do you like problem solving Do you enjoy working with ideas Are you good at essay writing Do you like working with figures Remember – back your strengths – avoid your weaknesses
- Thirdly, you need to consider your university or career objectives as these may mean that you have to gain passes in certain subjects. For example, if you want to read Medicine, Dentistry or Biomedical or Veterinary Science you will need at least two sciences which must include Chemistry. If you would like to apply for Architecture you will need to develop a portfolio of drawings and sketches of buildings as well as good mathematical skills. For many Economics, Management and Business courses you will need an A-Level in Mathematics. If on the other hand you want to keep your options open you will find that some courses do not have any A-Level special subject requirements, such as Law.

SOME IMPORTANT DO'S AND DON'T'S

1. Do give yourself as much time as possible to research the subjects you are planning to take at A-Level. If you are intending to continue with subjects you have studied at GCSE level you will already know quite a lot about them and you can get more detailed information from your teachers.
2. However, you might wish to take subjects that you have never looked at before but which sound exciting, such as Media Studies or Business Studies. They may require strong numerical skills or the need to write a lot of essays, which may not be your strong points.
3. Do try to avoid subjects that are overlapping. If any subjects that you are taking are very similar, you should check to ensure that they will be acceptable to universities and colleges you want to apply to. For example Media Studies, Film Studies and Communication Studies or Biology, Zoology and Botany. Universities do like to see breadth in the subjects studied at A-Level, as well as specialist knowledge. With highly competitive degree courses such as Law and Medicine this can sometimes make all the difference between acceptance and rejection. However, there are exceptions and if you have made up your mind about your future career you may find that choosing to study A-Level subjects that are in a similar field may not be a disadvantage. For example : Art, Textiles and Photography may well be perfectly suitable if you are applying for a course in Art and Design.
4. Don't choose A-Level subjects when you have struggled with them at GCSE Level. You may hope that everything will turn out all right in the sixth form when you can concentrate on fewer subjects, but it just does not work that way Indeed, you will probably find that most schools and colleges insist on a minimum performance in GCSE if you are choosing to take the same subject at A-Level. For example grade C (= 4) in GCSE English Literature or Language is not the ideal foundation for A-Level English, where essay skills and fluency in English is vital. It may well be that you should consider A-Level courses that have a practical element, such as Media Studies, or an art-based course, such as Photography or Textiles. As has already been mentioned we all have different talents and it is important to back your strengths if you wish to achieve good results.

5. Don't choose an A-Level course because you think it is a 'soft option'. A-Level courses are by definition academic, although some may contain a greater amount of practical work than others, such as for example, art-based subjects. Nevertheless, even in this area there is a need to compile a working notebook, or something similar, that requires written appraisal of the work you have done and careful presentation and analysis of your ideas and thoughts. Many universities now list subjects they consider to be soft options for certain degrees and which it is best to avoid.

6. Don't choose to take A-levels because you feel they are the only route to employment. You should ask yourself whether you need to take A-Levels and go on to Higher Education to get onto your chosen career. There are many other routes into the world of work, such as 'on the job' training, and these might be more suitable for you.

THE ROLE OF EDUCATION ADVISERS LTD

Education Advisers Ltd is an education consultancy which offers a number of free eGuides (such as this) most of which are available on its websites including:

www.universityadvice.co.uk
www.best-schools.co.uk

Education Advisers Ltd also provides other services including:

- Individual consultancy for students on school choice or curriculum.
- Advice on alternative schools / colleges if your current school does not offer the subjects or specialist tuition you need.
- Choice of University in the UK or the USA
- Financial planning advice for parents
- Marketing

Please contact us at

Education Advisers Limited
The Old Stables
Home Farm
Red Hill
Wateringbury
Kent ME18 5NN

Tel: 01622 813870 or email: info@educationadvisers.co.uk

APPENDIX A

A QUICK REFERENCE GUIDE WHEN CONSIDERING DEGREE AND CAREER CHOICES

The following guide gives the subject requirements for the top courses in Higher Education. All information is accurate as of June 2020 although you should be aware that entry requirements do change and you should always check on the current situation at the time of your application.

We have also included some useful website addresses for all these career areas. Some give specific careers information but they usually all give a lot of general information and should be looked at if you are considering working in that area.

DEGREE COURSE NEEDED

A/GCSE LEVEL SUBJECTS

Accounting/Finance/Banking

A-Level Maths needed for top universities.
GCSE Maths and English essential

www.icaew.com/contact <https://www.libf.ac.uk/>

(Institute of Chartered Accountants)
(Chartered Institute of Banking)

Actuarial Science

A-Level Maths grades A*/B needed.
Further Maths a A*/A desirable

Note: very competitive entry-standard and minimum A-Level offers will be AAB. Ideal candidates will be those who are good at Mathematics and have a real interest in finance and business.

<https://www.actuaries.org.uk/>

(Faculty & Institute of Actuaries)

Agriculture

A-Level Chemistry and/or Biology often required. Some institutions may ask for practical experience. Check with the institution. You should have Science passes at GCSE Level.

<https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs>
(Dept. of Environment Food & Rural Affairs)

American Studies

A-Level English and possibly History needed. Good passes in GCSE English Language and History. Some courses require a compulsory exchange year to be spent in the USA. Knowledge of the USA essential. First-hand knowledge of the USA an advantage.

https://en.wikipedia.org/wiki/American_studies_in_the_United_Kingdom

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Degree Course Needed

A/GCSE LEVEL SUBJECTS

Archaeology

A-Level subject requirements may include A Level History and/or Biology. GCSE subjects should contain Maths and Sciences. Some experience of 'digs' a recommendation and all institutions will want to know your reasons for choosing this course.

<https://www.britarch.ac.uk/> (Council for British Archaeology) also
<https://www.english-heritage.org.uk/>

Architecture

A-Level Maths and/or Physics usually required or a strong showing at GCSE in Physics. A-Level Art also needed. You need to show a portfolio of your work, especially your ability to draw. Some universities will set candidates a drawing test. Art and Design A Level preferable to Design Technology.

<https://www.architecture.com/>

(Royal Institution of British Architects)

Art and Design

A wide range of courses are covered under this general title such as, Fine Art, Graphic Design, Product Design, Industrial Design and Three Dimensional Design. Applicants can choose to apply by either Route A or Route B or by Routes A & B. Closing date for Route A candidates is January 15th (Oxbridge October 15th). Route B candidates can apply between January 1st and March 24th. A-Level Art a usual requirement. Entry to a degree is usually by portfolio inspection and then through a one-year Foundation course. Check with your chosen University.

<https://www.artscouncil.org.uk/>

(The Arts Council of England)

Art History

There are no special A-Level subject requirements for Art History although some courses demand modern language GCSE passes. You should have knowledge of art and artists and show that you have visited galleries and exhibitions. A Level History is preferred for some courses.

www.artcyclopedia.com

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Degree Course Needed

A/GCSE LEVEL SUBJECTS

Biochemistry

A-Levels in Chemistry and Biology normally required. An interest in both subjects beyond the scope of the exam syllabus would be an added recommendation. Strong passes in GCSE Sciences and Maths looked for by institutions.

<https://www.biochemistry.org/>

(The Biochemical Society)

Biology/Botany/Biophysics/ Biotechnology/Biomedical Sciences

A-Level Biology and preferably Chemistry also good maths grades needed. These courses cover very wide fields of study and you should gather as much information as possible on the different syllabuses. Good communication skills and high pass grades in GCSE Maths and Sciences.

<https://www.ibms.org/home/>
<https://mrc.ukri.org/>
<https://www.rsb.org.uk/>

Institute of Biomedical Science
Medical Research Council
Royal society of Biology

Building/Construction

Good passes in Maths, Science and English required. A-Level Maths and/or Physics needed at. Work experience often wanted and is becoming more usual as a requirement.

<https://www.cibse.org/>

Building Services Engineering

Business Courses/ Management/ Hotel & Catering/Tourism/ Marketing

A very wide 'umbrella' subject area. No special subject requirements although some universities may ask for A-Level or AS passes in Maths or Modern Languages. Good passes (9,8 or 7) may be required in GCSE Maths and English Language. For European and International Business Studies GCSE passes in the relevant languages will be required. More students apply for these courses than any other. A number of these courses involve what is known as a 'thick sandwich', which is a job placement after second year. Some relevant work experience often required.

<https://www.allaboutcareers.com/careers/industry/hospitality-tourism>

Appendix A:

Degree Course Needed

A/GCSE LEVEL SUBJECTS

Chemistry

A-Level Chemistry plus either Maths or Physics is usually required. Good GCSE passes in the sciences are looked for. Shortage of applicants has forced some institutions to lower their entry requirements. This is a central science that is increasingly in demand for business and industry.

<https://www.rsc.org/>

Royal Society of Chemistry

Classics/Classical Studies

A-Level Latin or Greek are needed for language-based courses. A-Level History a useful recommendation for both linguistic and non-linguistic courses. GCSE results should show evidence of ability in languages.

<https://www.britishmuseum.org/>

Computing/Business Info IT/Web Management

There are many different courses at university to choose from and they all require a good standard in A-Level and GCSE Maths (i.e. A* or A \ 9, 8 or 7). Work experience with computers is looked for by Admission Tutors. It is not essential to do A-Level Computing in order to be a successful applicant. A strong performance in Maths is looked for by top universities.

<https://www.bcs.org/>

(British Computer Society)

Dentistry

A-Level Chemistry plus Biology is required plus one or two other Science A-Levels. You should have high grades (9/8) in GCSE Science subjects. You can only apply for four dental courses, although you may also include one other non-dental courses on your application form. You must apply by October 15th. Vital to show work-experience or shadowing.

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<https://bda.org/>

(British Dental Association)

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Degree Course Needed

A/GCSE LEVEL SUBJECTS

Drama/Performing Arts

A-Level English Literature

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Some courses have a high practical element. You should check with institutions on syllabus. GCSE English Language is required. Passing auditions is usually more important than A Levels in entry to Specialist Drama Schools.

<https://www.thestage.co.uk/>
<https://www.stagecoach.co.uk/>

Economics

A-Level Economics/Business Studies may be required by some universities. Strong numerical skills important. Applicants should be aware that courses may require A-Level Maths. Good Maths grade (9, 8 or 7) at GCSE looked for. Also a reasonable understanding of economic issues in UK and world. A relevant work placement an advantage.

<https://www.res.org.uk/>

(Royal Economic Society)

Education/Childhood Studies

An A-Level in chosen specialist subject is usually required. Good GCSE passes in English Language, Science and Maths. Applications for teacher training courses require applicants to have gained work experience with the relevant age group.

www.teach-tta.gov.uk

(Teacher Training Agency)

Engineering/Aeronautical/Civil/ Structural/Marine/Chemical Electrical/Mechanical

GCSE Maths essential. Some universities require good passes in English Language and a modern language. A-Level Maths or Physics usually looked for as well as a good Science profile at GCSE and A-Level. Some universities provide one-year Foundation courses for candidates without Science A-Levels. On a number of the course students take a general first year and then specialise.

<https://www.engc.org.uk/>
<https://www.theiet.org/>
<https://www.imarest.org/>
<https://www.istructe.org/>

(The Engineering Council,
(Inst Electrical Engineers)
(Institute of Marine Engineers
(Institute of Civil & Structural Engineers)

Appendix A

Degree Course Needed

A/GCSE LEVEL SUBJECTS

Environmental Science/Studies

Considerable competition for places in Higher Education. Good GCSE passes in English required (9/8/7). Also evidence of ability in languages other than English looked for. For English Literature an A or B pass at A-Level is essential for most universities. You should have strong reading and writing skills and be able to demonstrate that you have read widely outside your set texts.

Environmental Science/Studies

An A-Level in chosen specialist subject is usually required. Good GCSE passes in English Language, Science and Maths. Applications for teacher training courses require applicants to have gained work experience with the relevant age group.

<https://www.gov.uk/government/organisations/environment-agency> (**Environment Agency**)

Food Studies/Science/Technology

Specialised courses which involve elements of dietetics, nutrition, food processing and biochemistry. Science A-Levels looked for, especially Chemistry and Biology, but Maths and Physics also accepted. Strong GCSE passes are required in the Sciences and Maths.

<https://quadram.ac.uk/>

Geography

Degrees are available on BA or BSc courses and you should apply accordingly depending on whether your A-Levels are mainly Arts or Sciences. This will determine whether you take study modules in the physical, economic or social aspects of Geography. Strong GCSE passes are looked for by the top universities.

<https://www.rgs.org/>
<https://www.geography.org.uk/>

(Royal Geographical Society)
(Geographical Association)

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Degree Course Needed

A/GCSE LEVEL SUBJECTS

**Geology/Geophysics/
eological Sciences**

A Science A-Level is required, usually Maths. A-Level Geography may be accepted as a science subject. But no previous knowledge of Geology is needed. Strong GCSE passes (9/8/7) in the Sciences and Maths, if not taking this at A-Level.

<https://www.geolsoc.org.uk>

(The Geological Society)

Health Studies/Sciences/Management

This is an 'umbrella' subject area for courses such as Osteopathy, Audiology, Nursing and Midwifery, Physiotherapy and Radiography. A-Level Sciences needed for entry to most courses as well as good passes in GCSE Maths, Science and English Language. Some work experience may be required by certain institutions. Health checks and DBS clearance necessary and clean manual UK driving license.

<https://www.gov.uk/government/organisations/department-of-health-and-social-care>
<https://www.bmj.com/>

(British Medical Journal)

**Government/Politics/
International Relations**

No specific A-Level subjects required. Social science A-Levels such as Sociology, Government and Politics or Economics looked for in A-Level portfolios of applicants. GCSE language/s required for applicants for International Relations. Good awareness of current events is looked for.

<https://www.parliament.uk/>
<https://www.amnesty.org/en/>

History

A-Level History usually required at a specified grade, but not essential for all courses. Degree courses cover a very broad field, including Regional Studies and therefore you may well need to have a good pass in a GCSE language other than English. For Ancient History courses a classical language may be required.

<https://www.historynet.com/>
<https://www.english-heritage.org.uk/>

**Languages/Modern Languages/
Middle Eastern/Chinese/East
European**

An A-Level in the language to be studied is required as well as good languages at GCSE Level. Courses will usually involve an exchange year, thus making them four years in length. Languages are often taken as joint courses.

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A/GCSE LEVEL SUBJECTS

Law

No specific A-Level subject requirements although there are high entry grades, usually a minimum of BBB. A few universities would prefer candidates not to have taken A-Law. With competition for places very fierce Admissions Tutors look for strong GCSE grades, as well as passes in Maths, English Language and a foreign language. Applicants should check with universities on their current policies relating to A-Level Law as attitudes do change. Students following art and music courses should check whether these are acceptable at their chosen universities.

<https://www.lawsociety.org.uk/>
<https://www.barcouncil.org.uk/>

(The Law Society)
(The General Council of the Bar)

Mathematics

A highly regarded subject for all courses in Higher Education. Degree courses in Maths cover the pure, applied, mechanics and statistics areas of the subject. A-Level Maths and /or Further Maths looked for by Admissions Tutors as well as a strong pass in the subject at GCSE Level (9/8/7).

<https://www.lms.ac.uk/>
<https://ima.org.uk/>

(London Mathematical Society)
(Institute of Mathematics and its Applications)

Media Studies/ Broadcasting/ Communication Studies/ Film, Video and Radio Studies/ Journalism

Increasingly popular area of study that has no special A-Level requirements, although A-Level English and Media Studies would be useful. GCSE passes in English Language and Maths are needed. Courses may well require ability in Art and Design and you should check course content carefully if you are applying.

<http://www.newsmediauk.org/>
<https://www.bbc.co.uk/>
<https://uk.reuters.com/>

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Degree Course Needed

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Medicine

A-Level Chemistry is obligatory and at least one other Science subject. Medical Schools are now more flexible in their view of A-Level subjects offered than they used to be. A-Level Biology is preferred by some Medical Schools. Some work experience is vital as well as a good understanding of current issues in medicine. 9/8/7 passes looked for in GCSE Science subjects. Places for medical courses are massively competitive and you need to be quite sure that this is the subject for you before applying. Applications need to be in by October 15th. **Ask for our eGuide on this subject.**

<https://www.bma.org.uk/>
<https://www.healthcareers.nhs.uk/>

(British Medical Association)
(NHS Careers Information Service)

Music

A-Level Music is required. In addition to A-Level qualifications candidates are usually asked to an audition. You should check course content when applying as you will find Music Theory and Practice (performance) contained in most degrees. As well as A Level Music an instrumental grade is usually required.

<https://www.artscouncil.org.uk/>

Nursing

One A-Level Science plus two other A-Levels and five GCSE passes, including Maths, English and a Science, is usually needed. Work experience in some area of the care industry is usually looked for as well as a strong commitment to looking after others. Occupational health check and DBS clearance needed.

<https://www.nhs.uk/>

(NHS Home Page)

Occupational Therapy

Minimum of five GCSE subjects, (7 – 4) to include English, Maths and Science. At A Level a social science or science subjects preferred. An occupational health check needs to be passed and DBS clearance needed. Very important to gain some work or shadowing experience at local hospital or nursing home. A competitive course and essential to be well briefed on what is involved if called for interview.

<https://www.rcot.co.uk/>

(Council of Occupational Therapy)

APPENDIX A

Degree Course Needed

A/GCSE LEVEL SUBJECTS

Pharmacy/Pharmacology

A-Level Chemistry and/or Biology required plus one or two other A-Level Sciences. GCSE passes in English Language, Maths and Sciences. There are usually work placements during the course and work experience prior to application is very often essential, especially for Pharmacy.

<https://www.rpharms.com/>

(Royal Pharmaceutical Society of Great Britain)

Philosophy

No special A-Level requirements. GCSE subjects must include English Language and Maths. You should read widely about this subject and be aware that it is a problem-solving study that will especially appeal to those who have a natural curiosity. A foreign language may be required at GCSE.

Physics/Astronomy/Astrophysics

A-Level Physics and Maths required as well as good passes in GCSE English Language, Science and maths. In recent years there has been a shortage of applicants for Physics and entry grades reflect this and universities are flexible in their offers.

Psychology

Although there are no specific A-Level requirements for entry to this course a Science subject would be a strong recommendation, as would Maths. There is a considerable amount of statistical analysis in most courses and therefore a good pass (9/8/7) in Maths at GCSE Level is looked for.

<https://www.bps.org.uk/public/become-psychologist> (**British Psychological Society**)

Sports Science/Physical Education

Usually A-Level Biology is looked for as well as strong passes in GCSE Maths, English Language and Science. Courses cover the social, economic, geographic organisation of sport and leisure and include elements of Psychology. You should check the content of courses carefully before applying to ensure you are properly qualified.

<https://www.uk sport.gov.uk/>

(UK Sport)

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Sociology

No special A-Level requirements. A-Level Sociology is perfectly acceptable. As some courses include statistical analysis the university will require a good GCSE pass (9, 8 or 7) or an AS Maths qualification.

Veterinary Medicine

Level Chemistry obligatory plus one or two other science subjects at A-Level. Strong GCSE profile essential. A fiercely competitive course and all applicants should have spent time working with in a veterinary practice. The course is rigorous and demanding and an exceptional level of commitment is looked for. Health checks may be required.

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<https://www.rcvs.org.uk/home/>

(Royal College of Veterinary Surgeons)

APPENDIX B

Top 12 most popular A Levels in 201 As per Joint Council for Qualifications

Subject	Male	Females	Total	Percent
Maths	56290	35605	91895	11.5
Biology	25641	43555	69196	8.6
Psychology	16500	48098	64598	8.1
Chemistry	27333	31757	59090	7.4
History	22503	28845	51438	6.4
Eng Lit	9153	31671	40824	5.1
Physics	30159	8799	38958	4.9
Sociology	8659	29356	38015	4.7
Geography	17136	17824	34960	4.4
Bus. Studies	20557	13368	33925	4.2
Economics	21557	9284	30841	3.9

Education Advisers Ltd

Contact us for a no-obligation initial consultation

Tel: +44 (0) 1622 813870 / 812852

Email: info@educationadvisers.co.uk

Websites: www.educationadvisers.co.uk

www.best-schools.co.uk

www.bestsummerschools.co.uk

www.sixth-form.com

www.bestprepschools.co.uk

www.best-sen.schools.co.uk

www.ib-schools.com

