



APPROVED CAREER PATHWAYS

IGCSE & A LEVEL SUBJECT COMBINATIONS

A structured progression guide linking seven IGCSE subjects to three A Level subjects for university and career readiness.

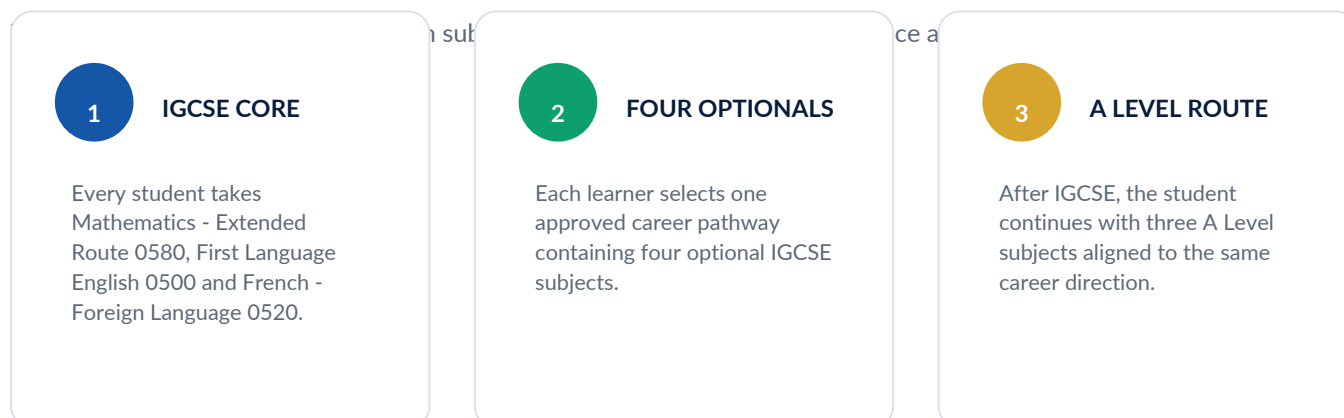
7 IGCSE SUBJECTS

3 core + 4 career optionals

3 A LEVEL SUBJECTS

A focused continuation route

How the ICC pathway system works



Compulsory IGCSE core for every pathway

1	Mathematics - Extended Route	0580
2	First Language English	0500
3	French - Foreign Language	0520

IMPORTANT

Cambridge International offers subjects individually and schools may structure combinations. These are ICC-approved pathways designed around staffing, student ability, career direction and timetable control.

Career pathways at a glance

Every row shows the four IGCSE optionals and the three-subject A Level continuation route.

No.	Career pathway	Four IGCSE optionals	Three A Level subjects
01	Medicine & Health Sciences	Biology, Chemistry, Physics, Additional Mathematics	Biology, Chemistry, Mathematics
02	Engineering & Physical Sciences	Physics, Chemistry, Additional Mathematics, Computer Science	Mathematics, Physics, Chemistry
03	Computer Science, AI & Robotics	Computer Science, Additional Mathematics, Physics, Information & Communication Technology	Mathematics, Computer Science, Physics
04	Architecture & Built Environment	Physics, Additional Mathematics, Art & Design, Information & Communication Technology	Mathematics, Physics, Art & Design
05	Business, Finance & Entrepreneurship	Economics, Business Studies, Additional Mathematics, Information & Communication Technology	Mathematics, Economics, Business
06	Law, Government & International Relations	History, Literature in English, Sociology, Information & Communication Technology	History, Sociology, Literature in English
07	Media, Communication & Creative Industries	Literature in English, Art & Design, Sociology, Information & Communication Technology	Literature in English, Sociology, Art & Design
08	Psychology, Education & Social Development	Biology, Sociology, Literature in English, Information & Communication Technology	Biology, Sociology, Literature in English
09	Biological & Environmental Sciences	Biology, Chemistry, Physics, Information & Communication Technology	Biology, Chemistry, Mathematics
10	General Academic Pathway	Biology, Economics, Business Studies, Information & Communication Technology	Economics, Business, Sociology

CAREER PATHWAY

Medicine & Health Sciences

Medicine, dentistry, pharmacy, nursing, physiotherapy, biomedical science, veterinary medicine and medical laboratory science.

01

IGCSE: 7 SUBJECTS

3 core + 4 optionals

COMPULSORY CORE

Mathematics - Extended Route	0580
First Language English	0500
French - Foreign Language	0520

FOUR CAREER OPTIONALS

1	Biology	0610
2	Chemistry	0620
3	Physics	0625
4	Additional Mathematics	0606

A LEVEL: 3 SUBJECTS

CONTINUATION ROUTE

1	Biology	9700
2	Chemistry	9701
3	Mathematics	9709

The A Level subjects provide the focused preparation expected for this career direction.

Why this pathway works

Triple-science preparation

Strong numerical foundation

Best fit for health-science entry

ENTRY GUIDANCE

Recommended for students with strong Mathematics and Science results. University requirements must be checked before final A Level registration.

CAREER PATHWAY

Engineering & Physical Sciences

02

Mechanical, electrical, civil, chemical, aerospace and petroleum engineering, physics and applied mathematics.

IGCSE: 7 SUBJECTS

3 core + 4 optionals

COMPULSORY CORE

Mathematics - Extended Route	0580
First Language English	0500
French - Foreign Language	0520

FOUR CAREER OPTIONALS

1	Physics	0625
2	Chemistry	0620
3	Additional Mathematics	0606
4	Computer Science	0478

A LEVEL: 3 SUBJECTS

CONTINUATION ROUTE

1	Mathematics	9709
2	Physics	9702
3	Chemistry	9701

The A Level subjects provide the focused preparation expected for this career direction.

Why this pathway works

Strong Mathematics pathway

Physical-science depth

Useful computing foundation

ENTRY GUIDANCE

Admission should depend on strong performance in Mathematics, Physics and Chemistry.

CAREER PATHWAY

Computer Science, AI & Robotics

03

Computer science, software engineering, artificial intelligence, cybersecurity, data science, robotics and systems development.

IGCSE: 7 SUBJECTS

3 core + 4 optionals

COMPULSORY CORE

Mathematics - Extended Route	0580
First Language English	0500
French - Foreign Language	0520

FOUR CAREER OPTIONALS

- 1 Computer Science 0478
- 2 Additional Mathematics 0606
- 3 Physics 0625
- 4 Information & Communication Technology 0417

A LEVEL: 3 SUBJECTS

CONTINUATION ROUTE

- 1 Mathematics 9709
- 2 Computer Science 9618
- 3 Physics 9702

The A Level subjects provide the focused preparation expected for this career direction.

Why this pathway works

Programming and algorithms

Quantitative problem-solving

Hardware and systems understanding

ENTRY GUIDANCE

ICT and Computer Science are different subjects; this pathway deliberately includes both at IGCSE.

CAREER PATHWAY

Architecture & Built Environment

04

Architecture, quantity surveying, construction management, civil engineering, interior design, product design and urban planning.

IGCSE: 7 SUBJECTS

3 core + 4 optional

COMPULSORY CORE

Mathematics - Extended Route	0580
First Language English	0500
French - Foreign Language	0520

FOUR CAREER OPTIONALS

- 1 Physics 0625
- 2 Additional Mathematics 0606
- 3 Art & Design 0400
- 4 Information & Communication Technology 0417

A LEVEL: 3 SUBJECTS

CONTINUATION ROUTE

- 1 Mathematics 9709
- 2 Physics 9702
- 3 Art & Design 9479

The A Level subjects provide the focused preparation expected for this career direction.

Why this pathway works

Technical and structural thinking

Drawing and visual communication

Portfolio development

ENTRY GUIDANCE

Students must be ready for both mathematical work and the sustained portfolio demands of Art & Design.

CAREER PATHWAY

Business, Finance & Entrepreneurship

05

Business administration, accounting, finance, banking, economics, entrepreneurship, marketing and management.

IGCSE: 7 SUBJECTS

3 core + 4 optional

COMPULSORY CORE

Mathematics - Extended Route	0580
First Language English	0500
French - Foreign Language	0520

FOUR CAREER OPTIONALS

- 1 Economics 0455
- 2 Business Studies 0450
- 3 Additional Mathematics 0606
- 4 Information & Communication Technology 0417

A LEVEL: 3 SUBJECTS

CONTINUATION ROUTE

- 1 Mathematics 9709
- 2 Economics 9708
- 3 Business 9609

The A Level subjects provide the focused preparation expected for this career direction.

Why this pathway works



Economic and commercial analysis



Financial and numerical confidence



Digital business skills

ENTRY GUIDANCE

This is ICC's strongest quantitative route for finance, economics and business-related university study.

CAREER PATHWAY

Law, Government & International Relations

06

Law, politics, diplomacy, international relations, governance, public administration, public policy and political research.

IGCSE: 7 SUBJECTS

3 core + 4 optional

COMPULSORY CORE

Mathematics - Extended Route	0580
First Language English	0500
French - Foreign Language	0520

FOUR CAREER OPTIONALS

- 1 History 0470
- 2 Literature in English 0475
- 3 Sociology 0495
- 4 Information & Communication Technology 0417

A LEVEL: 3 SUBJECTS

CONTINUATION ROUTE

- 1 History 9489
- 2 Sociology 9699
- 3 Literature in English 9695

The A Level subjects provide the focused preparation expected for this career direction.

Why this pathway works

Evidence and source evaluation

Argument and essay writing

Understanding society and institutions

ENTRY GUIDANCE This route suits strong readers and writers who can analyse evidence, explain ideas and construct disciplined arguments.

CAREER PATHWAY

Media, Communication & Creative Industries

07

Journalism, broadcasting, public relations, advertising, publishing, digital media, content production and creative entrepreneurship.

IGCSE: 7 SUBJECTS

3 core + 4 optionals

COMPULSORY CORE

Mathematics - Extended Route	0580
First Language English	0500
French - Foreign Language	0520

FOUR CAREER OPTIONALS

- 1 Literature in English 0475
- 2 Art & Design 0400
- 3 Sociology 0495
- 4 Information & Communication Technology 0417

A LEVEL: 3 SUBJECTS

CONTINUATION ROUTE

- 1 Literature in English 9695
- 2 Sociology 9699
- 3 Art & Design 9479

The A Level subjects provide the focused preparation expected for this career direction.

Why this pathway works

Writing and storytelling

Visual communication

Audience and social awareness

ENTRY GUIDANCE

Students should be prepared for both analytical writing and sustained creative portfolio work.

CAREER PATHWAY

Psychology, Education & Social Development

08

Psychology, education, teaching, social work, counselling-related study, human-resource management, child development and development studies.

IGCSE: 7 SUBJECTS

3 core + 4 optionals

COMPULSORY CORE

Mathematics - Extended Route	0580
First Language English	0500
French - Foreign Language	0520

FOUR CAREER OPTIONALS

- 1 Biology 0610
- 2 Sociology 0495
- 3 Literature in English 0475
- 4 Information & Communication Technology 0417

A LEVEL: 3 SUBJECTS

CONTINUATION ROUTE

- 1 Biology 9700
- 2 Sociology 9699
- 3 Literature in English 9695

The A Level subjects provide the focused preparation expected for this career direction.

Why this pathway works

Human development foundation

Social research and analysis

Communication and interpretation

ENTRY GUIDANCE

ICC does not currently list Psychology as a taught A Level subject, so this route builds the strongest available preparation using existing staffing.

CAREER PATHWAY

Biological & Environmental Sciences

09

Biological science, agriculture, environmental science, biotechnology, food science, conservation and laboratory research.

IGCSE: 7 SUBJECTS

3 core + 4 optional

COMPULSORY CORE

Mathematics - Extended Route	0580
First Language English	0500
French - Foreign Language	0520

FOUR CAREER OPTIONALS

1	Biology	0610
2	Chemistry	0620
3	Physics	0625
4	Information & Communication Technology	0417

A LEVEL: 3 SUBJECTS

CONTINUATION ROUTE

1	Biology	9700
2	Chemistry	9701
3	Mathematics	9709

The A Level subjects provide the focused preparation expected for this career direction.

Why this pathway works

Broad science preparation

Laboratory and data skills

Pathway into biological research

ENTRY GUIDANCE

Suitable for science students who need a broad laboratory foundation but did not take Additional Mathematics at IGCSE.

CAREER PATHWAY

General Academic Pathway

General business, public administration, education, social sciences, development studies, management and broad university programmes.

10

IGCSE: 7 SUBJECTS

3 core + 4 optional

COMPULSORY CORE

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FOUR CAREER OPTIONALS

- 1 Biology 0610
- 2 Economics 0455
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A LEVEL: 3 SUBJECTS

CONTINUATION ROUTE

- 1 Economics 9708
- 2 Business 9609
- 3 Sociology 9699

The A Level subjects provide the focused preparation expected for this career direction.

Why this pathway works

Balanced academic foundation

Business and social-science options

Useful for undecided students

ENTRY GUIDANCE

This route keeps several non-STEM options open, but students should still receive individual career guidance before entering A Level.

Selection, approval and progression rules

These controls should appear in the ICC application form, subject-selection workflow, parent guidance and LMS approval process.

ONE COMPLETE PATHWAY

Students must select one complete approved pathway. Free mixing of unrelated optionals is not permitted.

SEVEN IGCSE SUBJECTS

Every student writes three compulsory core subjects and four optionals: seven IGCSE subjects in total.

THREE A LEVEL SUBJECTS

Students continue with three A Level subjects from the corresponding progression route.

MATHEMATICS READINESS

Additional Mathematics and mathematically demanding pathways should require at least 70% in Mathematics or an ICC readiness assessment.

SCIENCE WORKLOAD

Triple-science and laboratory-heavy routes require strong academic performance, practical discipline and reliable attendance.

PORTFOLIO SUBJECTS

Art & Design requires substantial practical and portfolio work. Students must understand the time commitment before selection.

ENGLISH PLACEMENT

First Language English 0500 is for learners able to work at first-language level. ESL 0510/0511 may be used after assessment where appropriate.

UNIVERSITY CHECK

University and professional-entry requirements vary by country and institution. Final A Level choices must be checked against the intended destination.

OFFICIAL SUBJECT CODES

Codes and official subject names were checked against the Cambridge International IGCSE and AS & A Level subject listings. ICC determines the career pathways and internal selection rules.



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**Choose a pathway.
Build a future.**

Speak with ICC Admissions and the Cambridge Coordinator before final subject registration.



BEGIN YOUR ICC APPLICATION

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Subject availability and final registration remain subject to ICC approval, staffing, student readiness and examination arrangements.