

MATHEMATICS, PHYSICS & COMPUTER SCIENCE PATHWAY

ESSENTIAL CORE SUBJECTS

Choosing at least two of the essential subjects is recommended.

- ✓ Mathematics
- ✓ Physics
- ✓ Computer Science



FURTHER RECOMMENDED SUBJECTS

We recommend that you choose a further subject from the following list to complement your studies:

- ✓ Further Mathematics
- ✓ Graphics
- ✓ Biology
- ✓ Geography
- ✓ Chemistry
- ✓ Psychology
- ✓ Economics

These subjects are recommended however other options are available.
(Subject choice may differ at Campus locations, please see Coleg Gwent prospectus for details.)

WELSH BACCALAUREATE

Students will develop their study skills as they complete four challenges which include a research project. The Welsh Baccalaureate will count towards UCAS points.

ENRICHMENT ACTIVITIES

Robotics workshop, stretch and challenge Mathematics activities, work experience opportunities, A Level Conference Day, ICT/Computer Science support and 'IsaacPhysics' online workshops.

These are an example of activities and they may differ on each of our Campus locations.



You will need to choose a minimum of 3 or 4 A-Level subjects.
It is important when choosing your A-Level combinations to choose the right subjects for the career that you will want to pursue.



CAREER TIPS



- 01 After studying these subjects you can study for a degree in Engineering, Computer Science, Mathematics or Economics which are the most sought after degrees in the UK.
- 02 In 2020 there were 1.21 million computer related jobs in the UK with an average salary of £46,200.
- 03 In 2020 there were 1.27 million finance related jobs in the UK with an average salary of £46,300.
- 04 In 2020 there were 364,078 professional engineering related jobs in the UK with an average salary of £43,500.
- 05 Jeff Bezos studied electrical engineering and computer science, Bill Gates studied mathematics and computer science and Warren Buffet studied science and economics. These are the three richest men in the world with a combined net worth of \$286 billion.
- 06 AIRBUS forecasts the Aviation Industry will need 34,900 New Aircraft by 2036.
- 07 637,000 people are directly or indirectly employed in the Energy Industry across the UK.
- 08 Computer Science Graduates earn on average £43,895 six months after graduating.

MATHEMATICS, PHYSICS & COMPUTER SCIENCE

CAREER PATHWAYS



PHYSICS

- ✓ Medical Physicist
- ✓ Particle Physicist
- ✓ Nuclear Physicist



FINANCE

- ✓ Financial Director/Manager
- ✓ Accountant
- ✓ Actuary
- ✓ Banker



ENGINEERING

- ✓ Chemical Engineer
- ✓ Mechanical Engineer
- ✓ Electrical Engineer



COMPUTER SCIENCE

- ✓ Solution/Systems Architect
- ✓ Working in Artificial Intelligence
- ✓ Data Scientist



POPULAR UNIVERSITIES FOR THESE PATHWAYS



REFERENCES

- 01 <https://www.studying-in-uk.org/most-employable-degrees-in-uk/>
- 02 https://a.economicmodeling.com/analyst/?t=3BbpN#h=Rv8qv&page=occupation_report
- 03 https://a.economicmodeling.com/analyst/?t=3BbpN#h=Rv8vJ&page=occupation_report
- 04 https://a.economicmodeling.com/analyst/?t=3BbpN#h=Rv8yq&page=occupation_report
- 05 <https://www.e2studysolution.com/news/top-10-richest-people-in-the-world-and-what-do-they-study-in-the-university/>



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