A Level Computer Science

SEAFORD COLLEGE

HEAD OF COMPUTING – MR D CROOK

I will talk about:

- Why it is good to study Computer Science?
- What you will Study
- Assessment
- Expectations of students
- Future pathways

Why study Computer Science?

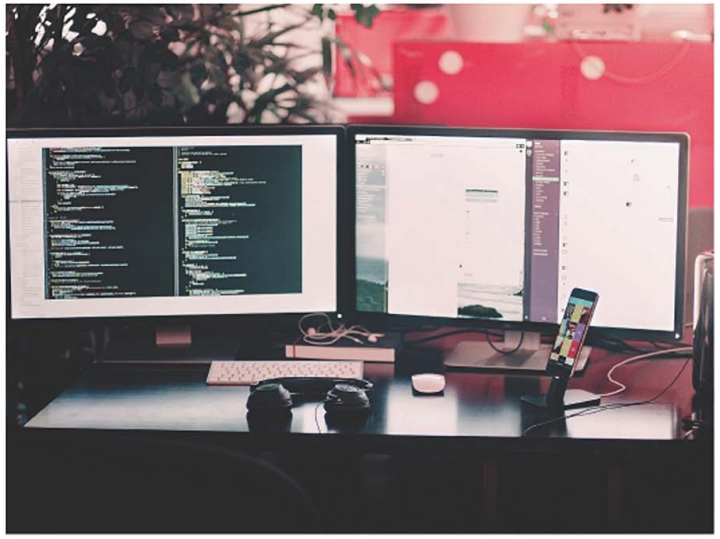
- Practical subject
- Creative
- Problem-solving
- Progression to Higher Education
- Skills for the future work force

Creative and Analytical Thinking

Students will enhance their capacity for creative and analytical thinking through programming challenges and system design. These skills are crucial for innovative problem-solving and adapting to technological changes.

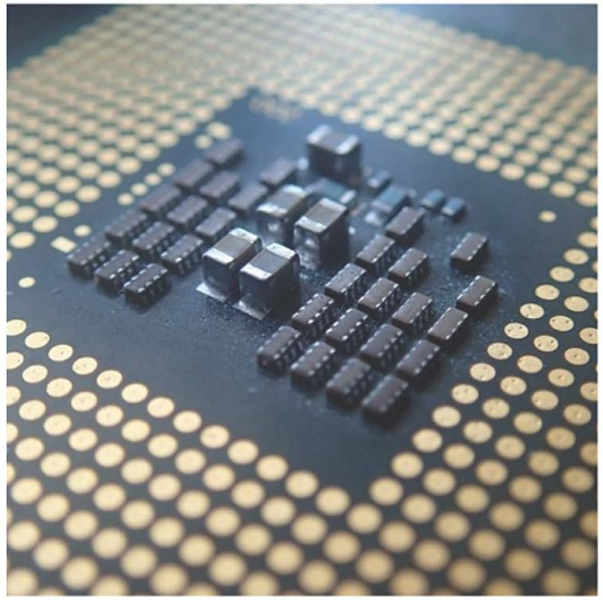
Component 1: Programming and System Development

This component investigates programs, data structures, algorithms, logic, programming methodologies and the impact of computer science on society.



Component 2: Computer Architecture, Data, Communication and Applications

This component investigates computer architecture, communication, data representation, organisation and structure of data, programs, algorithms and software applications.



Component 3: Programmed Solution to a Problem

Candidates discuss, investigate, design, prototype, refine and implement, test and evaluate a computerised solution to a problem chosen by the candidate which must be solved using original code (programming). This is a substantial piece of work, undertaken over an extended period of time.

How will I be assessed?

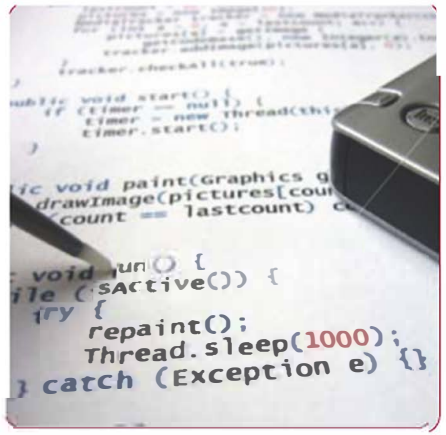
Component 1 Programming and System Development	Written Examination: 2 hours 45 minutes	40% of qualification
Component 2 Computer Architecture, Data, Communication and Applications	Written examination: 2 hours 45 minutes	40% of qualification
Component 3 Programmed Solution to a Problem	Non-exam assessment	20% of qualification

Software Development

python™

unity

Google Colaboratory



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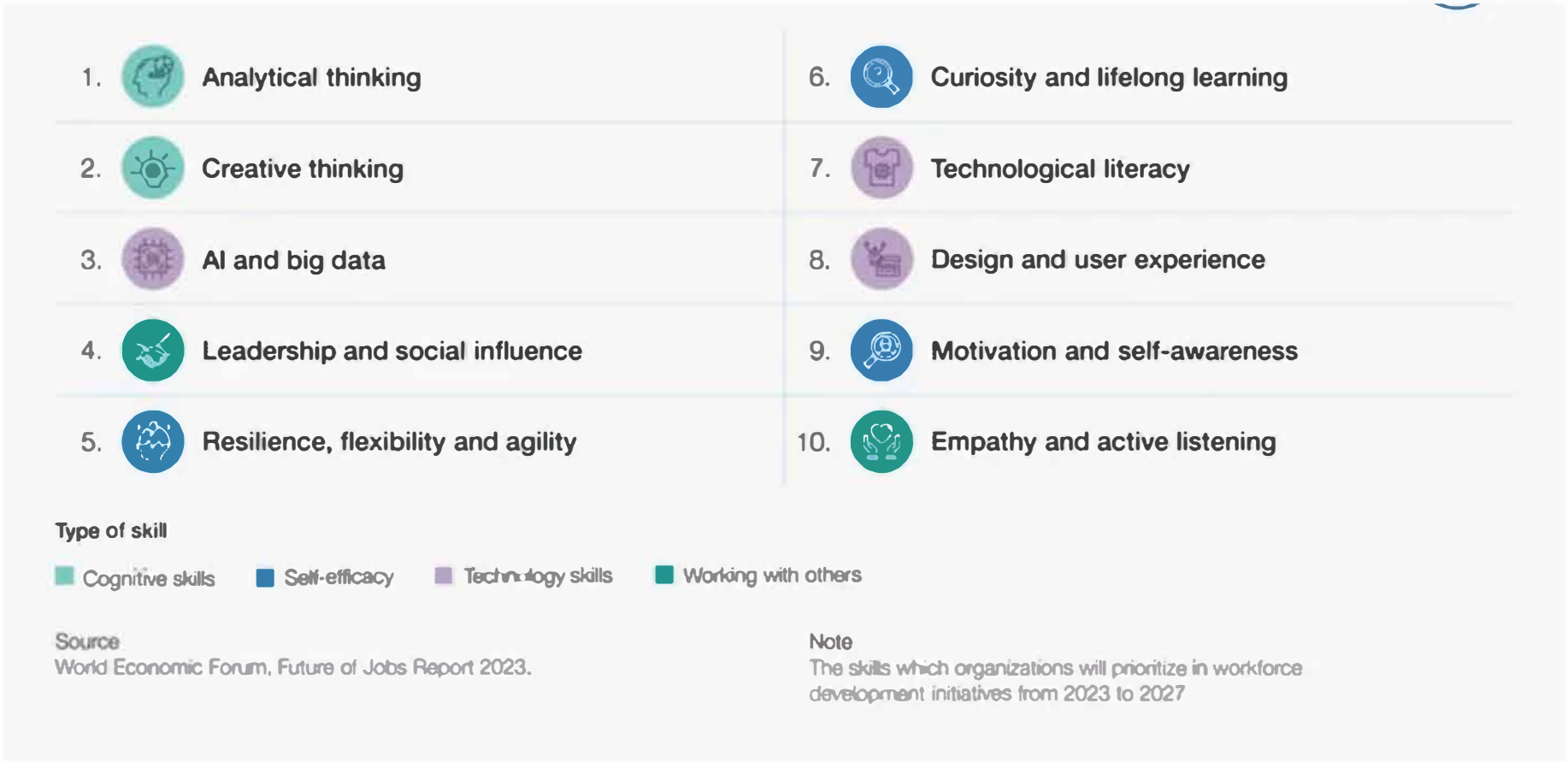
Businesses' top 10 skills priorities for 2027



Future Pathways

The latest data for the most popular degrees shows a boom in computer science courses, including AI, video games design and robotics as well as increased demand for business studies. Applications for computing-related degrees as of June were almost 10 per cent higher than last year, according to analysis of Ucas data, and 31 per cent higher than in 2019, making it the fastest-growing subject of choice in the country.

These are the degrees at the forefront of a wave of shiny new studies that will earn their students the highest graduate salaries.

Top 10 fastest growing jobs

Source
World Economic Forum, Future of Jobs Report 2023.