IB COMPUTER SCIENCE OVERVIEW AND COURS DESCRIPTION

I. Course description and aims

Computer Science is regarded as an experimental science, alongside biology, chemistry, design technology, physics and environmental systems and societies – and sits in the Group 4 list of subjects. The IB Computer Science course is a rigorous and practical problem-solving discipline.

The IB DP computer science course requires an understanding of the fundamental concepts of computational thinking as well as knowledge of how computers and other digital devices operate. The course, underpinned by conceptual thinking, draws on a wide spectrum of knowledge, and enables and empowers innovation, exploration and the acquisition of further knowledge. Students study how computer science interacts with and influences cultures, society and how individuals and societies behave, and the ethical issues involved. During the course the student will develop computational solutions. This will involve the ability to:

- identify a problem or unanswered question
- design, prototype and test a proposed solution
- liaise with clients to evaluate the success of the proposed solution and make recommendations for future developments.

The aims of the computer science courses are to:

- provide opportunities for study and creativity within a global context that will stimulate and challenge students developing the skills necessary for independent and lifelong learning

V. How is the course structured?

VIII. Computer Science and CAS project?
Choosing to do a CAS Computer science project can better help to understand the importance of the discipline, and how it touches on
the lives of real people. Experience gained will include a reflection to reveal personal growth and mastery of the seven learning outcomes.

Completion of CAS is based on student achievement of the seven CAS learning outcomes:
1. Identify own strengths and develop areas for growth
2. Demonstrate that challenges have been undertaken, developing new skills in the process
3. Demonstrate how to initiate and plan a CAS experience
4. Show commitment to and perseverance in CAS experiences
5. Demonstrate the skills and recognize the benefits of working collaboratively
6. Demonstrate engagement with issues of global significance
7. Recognize and consider the ethics of choices and actions
Through their CAS portfolio, students provide evidence demonstrating achievement of each learning outcomes.

IX. Extended Essay
Is an independent, self-directed piece of research, culminating in a 4000-word essay.
    Emphasis is placed on the research process, on personal engagement in the exploration of the topic and on communication of ideas and development of argument.
    It provides students with the opportunity to engage in personal research in a topic of their own choice.
    It requires approximately 40 hours of work by the student.
    It is compulsory for full DiploET /P AMCID 19Lang (en-U)BDC BTd5( )-4(me)7(n) TJce