# Introduction to Computer Studies: Grade 10

*Ministry:* The Ontario Curriculum, Grades 10 to 12: Computer Studies, *2008*
*course code: ICS2O1/7*
*credit value: 1 credit*
*prerequisite: none*
*textbook: none*

## Description (as per *The Ontario Curriculum, Grades 10 to 12*)

This course introduces students to computer programming. Students will plan and write simple computer programs by applying fundamental programming concepts, and learn to create clear and maintainable internal documentation. They will also learn to manage a computer by studying hardware configurations, software selection, operating system functions, networking, and safe computing practices. Students will also investigate the social impact of computer technologies, and develop an understanding of environmental and ethical issues related to the use of computers.

***Understanding Computers***
By the end of this course, students will:
- describe the functions of different types of hardware components, and assess the hardware needs of users;
- describe the different types of software products, and assess the software needs of users;
- use the basic functions of an operating system correctly;
- demonstrate an understanding of home computer networking concepts;
- explain the importance of software updates and system maintenance to manage the performance and increase the security of a computer.

***Introduction to Programming***
By the end of this course, students will:
- describe fundamental programming concepts and constructs;
- plan and write simple programs using fundamental programming concepts;
- apply basic code maintenance techniques when writing programs.

***Computers and Society***
By the end of this course, students will:
- describe key aspects of the impact of computers and related technologies on society;
- describe computer use policies that promote environmental stewardship and sustainability;
- describe legal and ethical issues related to the use of computing devices;
- describe post-secondary education and career prospects related to computer studies.

**Thinking.** This is a rigorous course based on critical thinking and problem solving. Upon successful completion of this course, students will be able to identify and solve problems, reason, reflect, make sound mathematical decisions, and demonstrate flexibility of thought.

**Technology.** The use of technology in the classroom increases student interest and engagement, demonstrates the relevance of technology to students' lives, and offers students the opportunity to investigate problems, conjecture, and practise higher-order thinking skills.

**Literacy.** In this course, students will be required to demonstrate their literacy skills by writing several non-fiction pieces. Teachers will provide appropriate topics such as explanations of current and emerging technologies; social, economic, and environmental effects of technology; and current and emerging Information and Communications Technology careers.

**Evaluation policy.** Please refer to the Student Agenda and the class website. Note, in particular, that late assignments are subject to a penalty of 5% per school day.

**Extra help** by appointment and during announced scheduled times.

## Communication

**Mr. Arkin (curriculum leader):**
*classroom: Lab C15*
*office: Computing Clubhouse, room C14*
*telephone: (416) 395-3310 extension 20091 (best time to call is before 08h30)*

**Ms. Keras, Ms. Xie:**
*classroom: Lab C3*
*office: Mathematics Office, room 225*
*telephone: (416) 395-3310, extension 20080 (best time to call is before 08h30)*

**Ms. Shams-Hakimi, Ms. Wu:**
*classroom: Lab C3*
*office: Engineering Lab*
*telephone: (416) 395-3310, extension 20091 (best time to call is before 08h30)*

## Absences & Evaluations

1. If you know prior to the evaluation that you will be absent, make other arrangements with your teacher regarding that particular assessment.
2. If for some reason you are absent on the day of an evaluation:
   (a) *Mr. Arkin:* before 08h30, leave him a Wikispaces e-mail message. *All others:* before 08h30, telephone and talk to her or leave her a message.
   (b) On the first day back, a note from your parent/guardian is required.

## Teaching, Assessment & Evaluation Strategies

A variety of instructional strategies will be used to address student needs, and a variety of assessment and evaluation techniques will be used. Assessment for learning (formative assessment) will be administered before assessment of learning (summative evaluation).

Student success is greatly enhanced by good attendance, good behaviour, and class participation. Completion of **daily** homework exercises and writing of all evaluations will provide feedback on student learning. For courses with multiple sections, summative evaluations will assess common expectations.

Quizzes and assignments will be scheduled throughout the course. A summative test will conclude a unit or a group of related units. Below is a list of anticipated evaluations. This list may be modified to accommodate circumstances that arise throughout the semester.

| *Units* | *Achievement Categories* |
|---|---|
| 1: Website design | |
| assignments | all |
| projects | all |
| test | all |
| 2: Introduction to programming | |
| assignments | all |
| quizzes | all |
| tests | all |
| 3: Hardware & networking | |
| assignments | all |
| projects | all |
| tests | all |
| 4: Social implications & careers | |
| assignments | all |
| projects | all |
| tests | all |

**Term mark** *(70% of final grade)*
*knowledge: 25%*
*application: 30%*
*communication: 20%*
*thinking: 25%*

**Summative mark** (30% of final grade)
*final exam: 30%*

**Learning skills.** Categories evaluated as *Needs Improvement, Satisfactory, Good,* or *Excellent:*
- responsibility
- independent work
- initiative
- organization
- collaboration
- self-regulation

**Accommodations.** In accordance with Ontario Regulation 181/98, for each unit of this course, instructional and assessment activities will take into account the strengths, needs, learning expectations, and accommodations identified in Individual Education Plans whether or not students are formally identified.