

SCIENCE & TECHNOLOGY 11

INSTRUCTOR: Joe Coops
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SCHEDULE: Monday 5:00pm-9:00pm
LEARNING CENTRE HOURS: Monday-Thursday 10:00am-2:00pm
Tuesday-Thursday 5:00pm-9:00pm
The Learning Centre is closed all statutory and school holidays.

INTRODUCTION

Science & Technology 11 is an introductory science course that satisfies the science requirement for graduation. Science & Technology 11 provides opportunities to investigate, analyse, understand, and experience the relationships among science, technology, and human society. Science & Technology 11 includes the contributions of technology to scientific knowledge and vice versa; the notion that science and technology are expressions of history, culture, and a range of personal factors; the processes of science and technology, such as experimentation, innovation, and invention; and the development of a conscious awareness of the ethics and choices involved in the uses of science and technology.

PRESCRIBED LEARNING OUTCOMES

The following core prescribed learning outcomes will be assessed throughout this course. It is expected that students will:

- *describe what science is and how it evolved*
- *identify the methods and principles of science*
- *apply the methods and principles of science to specific questions*
- *describe what technology is and how it evolved*
- *identify problem-solving strategies used in the development of a technology*
- *apply problem-solving strategies to a specific technological activity*
- *distinguish between fact and opinion*
- *demonstrate an appreciation that issues are influenced by people's values*
- *identify and analyse the interrelationships among science, technology, and society*
- *apply a decision-making model to science, technology, and society issues*
- *demonstrate an awareness that today's science and technology decisions will influence the future of society*
- *describe the major factors influencing society with respect to science and technology and describe their relative importance*

LEARNING RESOURCES

text: Introduction to Technology – 3rd edition (Pierce and Karwatka)

DVD: An Inconvenient Truth, Connections3

SCIENCE & TECHNOLOGY 11 at Coquitlam Learning Opportunity Centre

Science & Technology 11 is a self-paced, self-directed course. You will be expected to work independently and to manage your time productively. If needed, individual help is available from an instructor at the Learning Centre.

The unit assignments list the concepts to be mastered in each unit and the corresponding textbook page references. The Recall questions, Summary Activity and Comprehension Check in each assigned chapter will be useful to you in focusing your study and determining your readiness for the unit tests. An answer key is included for you to check your answers. Worksheets will also be provided to guide your viewing of the DVDs and assess your understanding of the topics covered.

UNITS OF STUDY

- Unit 1: Why Study Technology?
- Unit 2: Energy and Power for Technology
- Unit 3: Technology Connections
- Unit 4: Design and Problem Solving
- Unit 5: Computer Technologies
- Unit 6: Medical Biotechnologies
- Unit 7: Agricultural Biotechnologies
- Unit 8: Transportation Systems

EVALUATION

Evaluation in Science & Technology 11 will include 5 reflections, 2 assignments, and 8 unit tests. The reflections are fill-in-the-blank notes that follow the historical and technological connections described in each of five Connections3 DVD episodes. Assignment 1 focuses on global warming. Assignment 2 is an internet-based look at the difference between evidence-based medicine and pseudo medicine. Each unit test includes 6 matching, 4 multiple-choice, and 2 written-response questions. All test questions are based on the assigned textbook material. One rewrite is available for each unit test.

<u>UNIT</u>	<u>TEST/REFLECTION</u>	<u>CONTENT</u>	<u>PERCENT</u>
Unit 1:	Unit 1 test	Chapter 1	8
Unit 2:	Unit 2 test	Chapter 4	8
	Assignment 1	An Inconvenient Truth	6
Unit 3:	Unit 3 test	Chapter 6	8
	Reflection 1	Connections3 – Episode 1	5
Unit 4:	Unit 4 test	Chapter 7	8
	Reflection 2	Connections3 – Episode 2	5
Unit 5:	Unit 5 test	Chapter 10	8
	Reflection 3	Connections3 – Episode 3	5
Unit 6:	Unit 6 test	Chapter 14	8
	Assignment 2	quackwatch.com	5
Unit 7:	Unit 7 test	Chapter 15	8
	Reflection 4	Connections3 – Episode 4	5
Unit 8:	Unit 8 test	Chapter 22	8
	Reflection 5	Connections3 – Episode 5	5
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