
CAREER AND TECHNOLOGY STUDIES

A. PROGRAM RATIONALE AND PHILOSOPHY

Through Career and Technology Studies (CTS), secondary education in Alberta is responding to the many challenges of modern society, helping young people develop daily living skills and nurturing a flexible, well-qualified work force.

In Canada's information society, characterized by rapid change in the social and economic environment, students must be confident in their ability to respond to change and successfully meet the challenges they face in their own personal and work lives. In particular, they make decisions about what they will do when they finish high school. Many students will enter the work force, others will continue their education. All students face the challenges of growing independence and responsibility, and of entering post-secondary programs and/or the highly competitive workplace.

Secondary schools also face challenges. They must deliver, on a consistent basis, high quality, cost-effective programs that students, parents and the community find credible and relevant.

CTS helps schools and students meet these challenges. Schools can respond more efficiently and effectively to student and community needs and expectations by taking advantage of the opportunities in the CTS curriculum to design courses and access school, community and distance learning resources. Students can develop the confidence they need as they move into adult roles by assuming increased responsibility for their

learning; cultivating their individual talents, interests and abilities; and by defining and acting on their goals.

As an important component of education in Alberta secondary schools, CTS promotes student achievement by setting clear expectations and recognizing student success. Students in CTS develop competencies—the knowledge, skills and attitudes they are expected to demonstrate, that is, what they know and what they are able to do.

Acquired competencies can be applied now and in the future as students make a smooth transition into adult roles in the family, community, workplace and/or further education. To facilitate this transition, clearly stated expectations and standards have been defined in cooperation with teachers, business and industry representatives and post-secondary educators.

CTS offers all students important learning opportunities. Regardless of the particular area of study chosen, *students in CTS will:*

- develop skills that can be applied in their daily lives, now and in the future
- refine career-planning skills
- develop technology-related skills
- enhance employability skills
- apply and reinforce learnings developed in other subject areas.

In CTS, students build skills they can apply in their everyday lives. For example, in the CTS program, particularly at the introductory levels, students have the opportunity to improve their ability to make sound consumer decisions and to appreciate environmental and safety precautions.



A career encompasses more than activities just related to a person's job or occupation; it involves one's personal life in both local and global contexts; e.g., as a family member, a friend, a community volunteer, a citizen of the world.

The integration of careers throughout the CTS program helps students to make effective career decisions and to target their efforts. CTS students will have the opportunity to expand their knowledge about careers, occupations and job opportunities, as well as the education and/or training requirements involved. Also, students come to recognize the need for lifelong learning.

Students in CTS have the opportunity to use and apply technology and systems effectively and efficiently. This involves:

- a decision regarding which processes and procedures best suit the task at hand
- the appropriate selection and skilled use of the tools and/or resources available
- an assessment of and management of the impact the use of the technology may have on themselves, on others and on the environment.



Integrated throughout CTS are employability skills, those basic competencies that help students develop their personal management and social skills. Personal management skills are improved as students take increased responsibility for their learning, design innovative solutions to problems and challenges, and manage resources effectively and efficiently. Social skills improve through learning experiences that require students to work effectively with others, demonstrate teamwork and leadership, and maintain high standards in safety and accountability.

As well as honing employability skills, CTS reinforces and enhances learnings developed in core and other optional courses. The curriculum emphasizes, as appropriate, the effective application of communication and numeracy skills.

In addition to the common outcomes described above, students focusing on a particular area of study will develop career-specific competencies that support entry into the workplace and/or related post-secondary programs. Career-specific competencies can involve understanding and applying appropriate terminology, processes and technologies related to a specific career, occupation or job.

PROGRAM OUTCOMES

The program outcomes describe the basic competencies integrated throughout the CTS program.

Within an applied context relevant to personal goals, aptitudes and abilities; *the student* in CTS will:

- demonstrate the basic knowledge, skills and attitudes necessary for achievement and fulfillment in personal life
- develop an action plan that relates personal interests, abilities and aptitudes to career opportunities and requirements
- use technology effectively to link and apply appropriate tools, management and processes to produce a desired outcome
- develop basic competencies (employability skills), by:
 - selecting relevant, goal-related activities, ranking them in order of importance, allocating necessary time, and preparing and following schedules (managing learning)
 - linking theory and practice, using resources, tools, technology and processes responsibly and efficiently (managing resources)
 - applying effective and innovative decision-making and problem-solving strategies in the design, production, marketing and consumption of goods and services (problem solving and innovation)
 - demonstrating appropriate written and verbal skills, such as composition, summarization and presentation (communicating effectively)
 - participating as a team member by working cooperatively with others and contributing to the group with ideas, suggestions and effort (working with others)

- maintaining high standards of ethics, diligence, attendance and punctuality, following safe procedures consistently, and recognizing and eliminating potential hazards (demonstrating responsibility).

PROGRAM ORGANIZATION

CURRICULUM STRUCTURE

Career and Technology Studies is organized into **strands** and **courses**.

Strands in CTS define competencies that help students:

- build daily living skills
- investigate career options
- use technology (managing, processes, tools) effectively and efficiently
- prepare for entry into the workplace and/or related post-secondary programs.

In general, strands relate to selected industry sectors offering positive occupational opportunities for students. Some occupational opportunities require further education after high school, and some allow direct entry into the workplace. Industry sectors encompass goods-producing industries, such as agriculture, manufacturing and construction; and service-producing industries, such as business, health, finance and insurance.

Courses are the building blocks for each strand. They define what a student is expected to know and be able to do (exit-level *competencies*). Courses also specify prerequisites. Recommendations for course parameters, such as instructional qualifications, facilities and equipment can be found in the guides to implementation.

The competencies a student must demonstrate to achieve success in a course are defined through *general outcomes*. Senior high school students who can demonstrate the general outcomes defined for a CTS course; i.e., who have the designated competencies, will qualify for 1 credit toward their high school diploma.

Specific outcomes provide a more detailed framework for instruction. Within the context of the general outcomes, the specific outcomes further define the knowledge, skills and attitudes the student should acquire.

The following chart shows the 22 strands that comprise the CTS program and the number of 1-credit courses available in each strand.

Strand	No. of Courses
1. Agriculture	33
2. Career Transitions	30
3. Communication Technology	33
4. Community Health	31
5. Construction Technologies	46
6. Cosmetology Studies	58
7. Design Studies	31
8. Electro-Technologies	47
9. Energy and Mines	26
10. Enterprise and Innovation	8
11. Fabrication Studies	44
12. Fashion Studies	29
13. Financial Management	16
14. Foods	37
15. Forestry	21
16. Information Processing	53
17. Legal Studies	13
18. Logistics	12
19. Management and Marketing	23
20. Mechanics	54
21. Tourism Studies	24
22. Wildlife	17

LEVELS OF ACHIEVEMENT

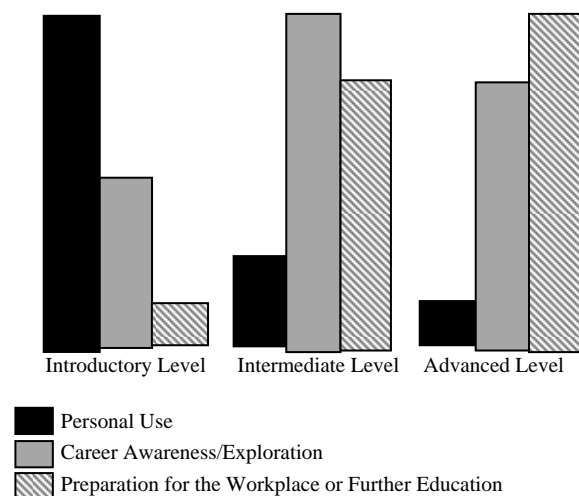
Courses are organized into three levels of achievement: **introductory**, **intermediate** and **advanced**. As students progress through the levels, they will be expected to meet higher standards and demonstrate an increased degree of competence, in both the program outcomes and the general outcomes defined for individual courses.

Introductory level courses help students build daily living skills and form the basis for further learning. Introductory courses are for students who have no previous experience in the strand.

Intermediate level courses build on the competencies developed at the introductory level. They provide a broader perspective, helping students recognize the wide range of related career opportunities available within the strand.

Advanced level courses refine expertise and help prepare students for entry into the workplace or a related post-secondary program.

The graph below illustrates the relative emphasis on the aspects of career planning at each of the levels.



CURRICULUM AND ASSESSMENT STANDARDS

Curriculum standards in CTS define what students must know and be able to do. Curriculum standards are expressed through the program outcomes for CTS, and through general and specific outcomes defined for individual courses within each strand.

Assessment standards define how student performance is to be judged. In CTS, each assessment standard defines the conditions and criteria to be used for assessing the competencies associated with each general outcome. To receive credit for a course, students must demonstrate competency at the level specified by the conditions and criteria defined for each general outcome.

Students throughout the province receive a fair and reliable assessment as they use the standards to guide their efforts, thus ensuring they participate more effectively and successfully in the learning and assessment process. Standards at advanced levels are, as much as possible, linked to workplace and post-secondary entry-level requirements.

TYPES OF COMPETENCIES

Two types of competencies are defined within the CTS program: basic and career-specific.

Basic competencies are generic to any career area and are developed within each course. Basic competencies include:

- personal management; e.g., managing learning, being innovative, ethics, managing resources
- social; e.g., communication, teamwork, leadership and service, demonstrating responsibility (safety and accountability).

Career-specific competencies relate to a particular strand. These competencies build daily living skills at the introductory levels and support the smooth transition to the workplace and/or post-secondary programs at the intermediate and advanced levels.

The model below shows the relationship of the two types of competencies within the 22 strands of the CTS program.












BASIC COMPETENCIES REFERENCE GUIDE

The chart below outlines basic competencies that students endeavour to develop and enhance in each of the CTS strands and courses. Students' basic competencies should be assessed through observations involving the student, teacher(s), peers and others as they complete the requirements for each course. In general, there is a progression of task complexity and student initiative as outlined in the Developmental Framework★. **As students progress through Stages 1, 2, 3 and 4 of this reference guide, they build on the competencies gained in earlier stages.** Students leaving high school should set themselves a goal of being able to demonstrate Stage 3 performance.

Suggested strategies for classroom use include:

- having students rate themselves and each other
- using in reflective conversation between teacher and student
- highlighting areas of strength
- tracking growth in various CTS strands
- highlighting areas upon which to focus
- maintaining a student portfolio.

Stage 1— <i>The student:</i>	Stage 2— <i>The student:</i>	Stage 3— <i>The student:</i>	Stage 4— <i>The student:</i>
<p>Managing Learning</p> <ul style="list-style-type: none"> <input type="checkbox"/> comes to class prepared for learning <input type="checkbox"/> follows basic instructions, as directed <input type="checkbox"/> acquires specialized knowledge, skills and attitudes <input type="checkbox"/> identifies criteria for evaluating choices and making decisions <input type="checkbox"/> uses a variety of learning strategies 	<p><input type="checkbox"/> </p> <ul style="list-style-type: none"> <input type="checkbox"/> follows instructions, with limited direction <input type="checkbox"/> sets goals and establishes steps to achieve them, with direction <input type="checkbox"/> applies specialized knowledge, skills and attitudes in practical situations <input type="checkbox"/> identifies and applies a range of effective strategies for solving problems and making decisions <input type="checkbox"/> explores and uses a variety of learning strategies, with limited direction 	<p><input type="checkbox"/> </p> <ul style="list-style-type: none"> <input type="checkbox"/> follows detailed instructions on an independent basis <input type="checkbox"/> sets clear goals and establishes steps to achieve them <input type="checkbox"/> transfers and applies specialized knowledge, skills and attitudes in a variety of situations <input type="checkbox"/> uses a range of critical thinking skills to evaluate situations, solve problems and make decisions <input type="checkbox"/> selects and uses effective learning strategies <input type="checkbox"/> cooperates with others in the effective use of learning strategies 	<p><input type="checkbox"/> </p> <p><input type="checkbox"/> </p> <ul style="list-style-type: none"> <input type="checkbox"/> demonstrates self-direction in learning, goal setting and goal achievement <input type="checkbox"/> transfers and applies learning in new situations; demonstrates commitment to lifelong learning <input type="checkbox"/> thinks critically and acts logically to evaluate situations, solve problems and make decisions <input type="checkbox"/> <input type="checkbox"/> provides leadership in the effective use of learning strategies
<p>Managing Resources</p> <ul style="list-style-type: none"> <input type="checkbox"/> adheres to established timelines; uses time/schedules/planners effectively <input type="checkbox"/> uses information (material and human resources), as directed <input type="checkbox"/> uses technology (facilities, equipment, supplies), as directed, to perform a task or provide a service <input type="checkbox"/> maintains, stores and/or disposes of equipment and materials, as directed 	<ul style="list-style-type: none"> <input type="checkbox"/> creates and adheres to timelines, with limited direction; uses time/schedules/planners effectively <input type="checkbox"/> accesses and uses a range of relevant information (material and human resources), with limited direction <input type="checkbox"/> uses technology (facilities, equipment, supplies), as appropriate, to perform a task or provide a service, with minimal assistance and supervision <input type="checkbox"/> maintains, stores and/or disposes of equipment and materials, with limited assistance 	<ul style="list-style-type: none"> <input type="checkbox"/> creates and adheres to detailed timelines on an independent basis; prioritizes task; uses time/schedules/planners effectively <input type="checkbox"/> accesses a range of information (material and human resources), and recognizes when additional resources are required <input type="checkbox"/> selects and uses appropriate technology (facilities, equipment, supplies) to perform a task or provide a service on an independent basis <input type="checkbox"/> maintains, stores and/or disposes of equipment and materials on an independent basis 	<ul style="list-style-type: none"> <input type="checkbox"/> creates and adheres to detailed timelines; uses time/schedules/planners effectively; prioritizes tasks on a consistent basis <input type="checkbox"/> uses a wide range of information (material and human resources) in order to support and enhance the basic requirement <input type="checkbox"/> recognizes the monetary and intrinsic value of managing technology (facilities, equipment, supplies) <input type="checkbox"/> demonstrates effective techniques for managing facilities, equipment and supplies
<p>Problem Solving and Innovation</p> <ul style="list-style-type: none"> <input type="checkbox"/> participates in problem solving as a process <input type="checkbox"/> learns a range of problem-solving skills and approaches <input type="checkbox"/> practices problem-solving skills by responding appropriately to a clearly defined problem, specified goals and constraints, by: <ul style="list-style-type: none"> – generating alternatives – evaluating alternatives – selecting appropriate alternative(s) – taking action 	<ul style="list-style-type: none"> <input type="checkbox"/> identifies the problem and selects an appropriate problem-solving approach, responding appropriately to specified goals and constraints <input type="checkbox"/> applies problem-solving skills to a directed or a self-directed activity, by: <ul style="list-style-type: none"> – generating alternatives – evaluating alternatives – selecting appropriate alternative(s) – taking action 	<ul style="list-style-type: none"> <input type="checkbox"/> thinks critically and acts logically in the context of problem solving <input type="checkbox"/> transfers problem-solving skills to real-life situations, by generating new possibilities <input type="checkbox"/> prepares implementation plans <input type="checkbox"/> recognizes risks 	<ul style="list-style-type: none"> <input type="checkbox"/> identifies and resolves problems efficiently and effectively <input type="checkbox"/> identifies and suggests new ideas to get the job done creatively, by: <ul style="list-style-type: none"> – combining ideas or information in new ways – making connections among seemingly unrelated ideas – seeking out opportunities in an active manner

Stage 1— <i>The student:</i>	Stage 2— <i>The student:</i>	Stage 3— <i>The student:</i>	Stage 4— <i>The student:</i>
<p>Communicating Effectively</p> <ul style="list-style-type: none"> <input type="checkbox"/> uses communication skills; e.g., reading, writing, illustrating, speaking <input type="checkbox"/> uses language in appropriate context <input type="checkbox"/> listens to understand and learn <input type="checkbox"/> demonstrates positive interpersonal skills in selected contexts 	<ul style="list-style-type: none"> <input type="checkbox"/> communicates thoughts, feelings and ideas to justify or challenge a position, using written, oral and/or visual means <input type="checkbox"/> uses technical language appropriately <input type="checkbox"/> listens and responds to understand and learn <input type="checkbox"/> demonstrates positive interpersonal skills in many contexts 	<ul style="list-style-type: none"> <input type="checkbox"/> prepares and effectively presents accurate, concise, written, visual and/or oral reports providing reasoned arguments <input type="checkbox"/> encourages, persuades, convinces or otherwise motivates individuals <input type="checkbox"/> listens and responds to understand, learn and teach <input type="checkbox"/> demonstrates positive interpersonal skills in most contexts 	<ul style="list-style-type: none"> <input type="checkbox"/> negotiates effectively, by working toward an agreement that may involve exchanging specific resources or resolving divergent interests <input type="checkbox"/> negotiates and works toward a consensus <input type="checkbox"/> listens and responds to understand, learn, teach and evaluate <input type="checkbox"/> promotes positive interpersonal skills among others
<p>Working with Others</p> <ul style="list-style-type: none"> <input type="checkbox"/> fulfills responsibility in a group project <input type="checkbox"/> works collaboratively in structured situations with peer members <input type="checkbox"/> acknowledges the opinions and contributions of others in the group 	<ul style="list-style-type: none"> <input type="checkbox"/>  <input type="checkbox"/> cooperates to achieve group results <input type="checkbox"/> maintains a balance between speaking, listening and responding in group discussions <input type="checkbox"/> respects the feelings and views of others 	<ul style="list-style-type: none"> <input type="checkbox"/> seeks a team approach, as appropriate, based on group needs and benefits; e.g., idea potential, variety of strengths, sharing of workload <input type="checkbox"/> works in a team or group: <ul style="list-style-type: none"> – encourages and supports team members – helps others in a positive manner – provides leadership/followership as required – negotiates and works toward consensus as required 	<ul style="list-style-type: none"> <input type="checkbox"/> leads, where appropriate, mobilizing the group for high performance <input type="checkbox"/> understands and works within the context of the group <input type="checkbox"/> prepares, validates and implements plans that reveal new possibilities
<p>Demonstrating Responsibility</p> <p>Attendance</p> <ul style="list-style-type: none"> <input type="checkbox"/> demonstrates responsibility in attendance, punctuality and task completion <p>Safety</p> <ul style="list-style-type: none"> <input type="checkbox"/> follows personal and environmental health and safety procedures <input type="checkbox"/> identifies immediate hazards and their impact on self, others and the environment <input type="checkbox"/> follows appropriate/emergency response procedures <p>Ethics</p> <ul style="list-style-type: none"> <input type="checkbox"/> makes personal judgements about whether or not certain behaviours/actions are right or wrong 	<ul style="list-style-type: none"> <input type="checkbox"/>  <input type="checkbox"/> recognizes and follows personal and environmental health and safety procedures <input type="checkbox"/> identifies immediate and potential hazards and their impact on self, others and the environment <input type="checkbox"/>  <input type="checkbox"/> assesses how personal judgements affect other peer members and/or family; e.g., home and school 	<ul style="list-style-type: none"> <input type="checkbox"/>  <input type="checkbox"/> establishes and follows personal and environmental health and safety procedures <input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/> assesses the implications of personal/group actions within the broader community; e.g., workplace 	<ul style="list-style-type: none"> <input type="checkbox"/>  <input type="checkbox"/> transfers and applies personal and environmental health and safety procedures to a variety of environments and situations <input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/> demonstrates accountability for actions taken to address immediate and potential hazards <input type="checkbox"/> analyzes the implications of personal/group actions within the global context <input type="checkbox"/> states and defends a personal code of ethics as required
<p>★Developmental Framework</p> <ul style="list-style-type: none"> • <i>Simple task</i> • <i>Structured environment</i> • <i>Directed learning</i> 	<ul style="list-style-type: none"> • <i>Task with limited variables</i> • <i>Less structured environment</i> • <i>Limited direction</i> 	<ul style="list-style-type: none"> • <i>Task with multiple variables</i> • <i>Flexible environment</i> • <i>Self-directed learning, seeking assistance as required</i> 	<ul style="list-style-type: none"> • <i>Complex task</i> • <i>Open environment</i> • <i>Self-directed/self-motivated</i>

COMMUNICATION TECHNOLOGY

B. STRAND RATIONALE AND PHILOSOPHY

In an information society characterized by rapid change in the social, economic and technological environments, students must be prepared to use information and technology effectively and efficiently. Communication Technology, a strand in Career and Technology Studies, helps students develop a broad awareness of the impact that presentation and communication, print, photography, and media design and application make in every aspect of their lives.

The knowledge and skills acquired from studying Communication Technology are transferable throughout the core and optional curricula, giving students an edge in presenting their views and ideas, in understanding others and in completing projects.

For example, a student may no longer be restricted to doing an essay or preparing a written report as part of a course requirement. Instead, the student may use any combination of Communication Technology skills to complete an assignment. On a more personal level, the student may apply these skills in everyday activities.

Finally, as the communications industry becomes more and more sophisticated, and as the merging of the different communication technologies continues to evolve, it is imperative that students improve their level of media and technological literacy in order to cope with their daily chores.

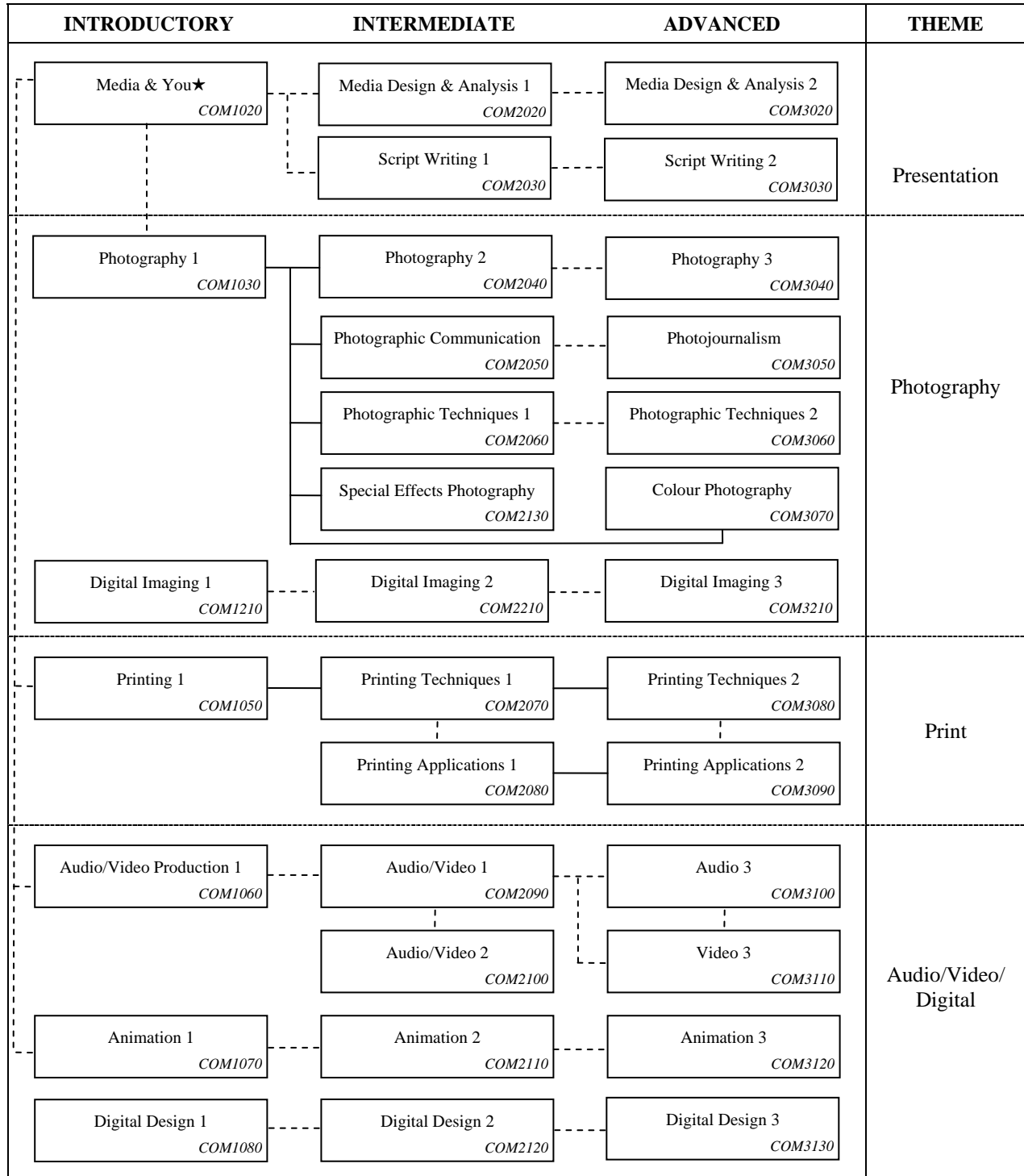
Students need to broaden their horizons to include the latest digital technology as it applies to print, photography, animation, and audio and video production, whether they intend to apply these skills professionally or for their personal use. Communication skills are necessary for the pursuit of a successful career in any field, and communicating effectively using a variety of media gives students an advantage as they enter the information age of the 21st century.

Within the philosophy of Career and Technology Studies, *students* in Communication Technology *will*:

- develop the basic knowledge, skills and attitudes necessary for exploration and pursuit of further training for a career in the communication technology field
- demonstrate an understanding of the various sectors of the industry and of their own potential with respect to job opportunities
- learn how to function in a productive team environment and how to develop individual competence in a creative and imaginative way
- develop a positive self-concept and realistic life goals through exploring personal interests and aptitudes

- develop the ability to function as media and technologically literate citizens, and understand not only the technological factors, but also the social, cultural and global issues that affect the various communication media
- develop expertise in applying creative thinking and enterprising/innovative strategies to problem solving
- develop an appreciation for environmental, safety and ethical issues related to communication technology
- develop an appreciation for local, regional and global contribution to communication technology
- develop a positive attitude toward work ethics, productivity and time management.

SCOPE AND SEQUENCE



—— Prerequisite

----- Recommended sequence

★ Course provides a strong foundation for further learning in this strand.

Note: Presentation & Communication 1, 2 and 3 have been withdrawn effective September 2003, 2004 and 2005 respectively.

GENERAL OUTCOMES: INTRODUCTORY LEVEL

COURSE COM1020: MEDIA & YOU

Level: Introductory

Theme: Presentation

Prerequisite: None

Description: Students are provided with a hands-on introduction to the various segments of communication studies: presentation and communication, photography, print, and audio/video production.

General Outcomes: *The student will:*

- identify and describe current media and materials
- use photographic, print and audio/video equipment to communicate ideas and information
- prepare and deliver a presentation
- demonstrate basic competencies.

COURSE COM1030: PHOTOGRAPHY 1

Level: Introductory

Theme: Photography

Prerequisite: None

Description: Students operate a camera to take photographs and produce prints.

General Outcomes: *The student will:*

- use various photographic equipment, materials and processes to demonstrate basic photographic skills
- describe and/or use various processing methods; e.g., black and white, colour, digital
- describe the role of photography in society
- demonstrate basic competencies.

COURSE COM1050: PRINTING 1

Level: Introductory

Theme: Print

Prerequisite: None

Description: Students are introduced to basic layout/design techniques and to various print reproduction processes; e.g., offset, screen, electrostatic.

General Outcomes: *The student will:*

- identify the fundamental characteristics and applications of type, paper and ink
- produce a design/layout
- apply printing techniques in the production of print/graphic projects
- demonstrate basic competencies.

COURSE COM1060: AUDIO/VIDEO PRODUCTION 1

Level: Introductory

Theme: Audio/Video/Digital

Prerequisite: None

Description: Students acquire basic production skills through the use of simple audio and/or video equipment and techniques.

General Outcomes: *The student will:*

- identify basic audio and video equipment, and demonstrate fundamental set-up procedures
- identify and demonstrate basic audio and video concepts; e.g., camera moves, types of shots, audio mixing, audio set-up
- apply basic project planning skills to audio/video productions
- apply scripting, sound recording, and camera and lighting skills and techniques in completing a production assignment
- demonstrate basic competencies.

COURSE COM1070: ANIMATION 1

Level: Introductory

Theme: Audio/Video/Digital

Prerequisite: None

Description: Students are introduced to a variety of animation techniques and are given the opportunity to produce simple animation.

General Outcomes: *The student will:*

- identify fundamental concepts of the illusion of movement through animation
- identify and describe at least two animation styles
- describe the techniques used in creating the animation styles
- produce short animation assignments
- demonstrate basic competencies.

COURSE COM1080: DIGITAL DESIGN 1

Level: Introductory

Theme: Audio/Video/Digital

Prerequisite: None

Description: Students are introduced to the integration of various media; e.g., audio, video, photographic, graphic, for the purpose of producing a multimedia message.

General Outcomes: *The student will:*

- identify and describe tools, methods and processes used in digital design
- use specified tools to transfer media elements to and/or from various sources
- design and produce a simple message, using a combination of two or more media
- demonstrate basic competencies.

COURSE COM1210: DIGITAL IMAGING 1

Level: Introductory

Theme: Photography

Prerequisite: None

Description: Students will learn the fundamentals of digital image acquisition, using a digital camera. Images will be saved to a folder or directory and manipulated, using bitmap editing software.

General Outcomes: *The student will:*

- demonstrate knowledge of:
 - digital camera components, commands and controls
 - basic compositional strategies used in photography
- use a digital camera to acquire images that follow basic rules of composition
- download to a directory images acquired from a digital camera, and save as editable files
- apply basic bitmap editing software functions and commands to edit digital image files
- present edited images to an audience
- demonstrate basic competencies.

GENERAL OUTCOMES: INTERMEDIATE LEVEL

COURSE COM2020: MEDIA DESIGN & ANALYSIS 1

Level: Intermediate

Theme: Presentation

Prerequisite: None

Description: Students explore various media and examine their impact on personal, community and national interests.

General Outcomes: *The student will:*

- analyze various media messages; e.g., radio, television, photography, print; and describe the impact of the various messages from a personal, community and national perspective
- design and produce simple messages, and communicate them through specified media; e.g., print, audio/video, animation
- demonstrate basic competencies.

COURSE COM2030: SCRIPT WRITING 1

Level: Intermediate

Theme: Presentation

Prerequisite: None

Description: Students write sample scripts for a variety of media forms.

General Outcomes: *The student will:*

- describe various media scripts and their formats
- identify the characteristics of a good script
- identify and use a script writing process in writing sample scripts for a media format assigned by the teacher
- demonstrate basic competencies.

COURSE COM2040: PHOTOGRAPHY 2

Level: Intermediate

Theme: Photography

Prerequisite: COM1030 Photography 1

Description: Students review and expand on the concepts outlined in COM1030 Photography 1, including composition, exposure, camera operation, image processing, proofing and enlarging.

General Outcomes: *The student will:*

- apply exposure principles and composition guidelines in photography assignments
- demonstrate proficiency in the theory and practice of image processing, proofing, enlarging and print display
- demonstrate basic competencies.

COURSE COM2050: PHOTOGRAPHIC COMMUNICATION

Level: Intermediate

Theme: Photography

Prerequisite: COM1030 Photography 1

Description: Students use photographic prints, slides or digital images to communicate a message or tell a story.

General Outcomes: *The student will:*

- identify and describe storytelling/storyboarding techniques
- produce photographic prints, slides or digital images to communicate a message or tell a story
- develop the narration, music, sound effects or captions to accompany the images
- demonstrate basic competencies.

COURSE COM2060: PHOTOGRAPHIC TECHNIQUES 1

Level: Intermediate

Theme: Photography

Prerequisite: COM1030 Photography 1

Description: Students expand photographic concepts by using various lenses and applying depth of field in composition.

General Outcomes: *The student will:*

- describe the characteristics of different lenses and their applications
- apply depth-of-field principles to obtain a variety of results in completing photographic assignments
- describe and apply several darkroom and/or digital techniques, including cropping, contrast control, dodging, vignetting and burning in
- demonstrate basic competencies.

COURSE COM2070: PRINTING TECHNIQUES 1

Level: Intermediate

Theme: Print

Prerequisite: COM1050 Printing 1

Description: Students are introduced to single-register reproductive printing.

General Outcomes: *The student will:*

- prepare visual images for printing by various methods; e.g., offset lithography, serigraphy, relief lock, digital
- prepare various masters; e.g., offset plate, serigraphic stencil, relief lockup, digital master
- print an image in register, using one or more methods
- finish printed material as required; e.g., trim, bind, pad, heat
- demonstrate basic competencies.

COURSE COM2080: PRINTING APPLICATIONS 1

Level: Intermediate

Theme: Print

Prerequisite: None

Description: Students apply the technique of single-register printing to practical situations.

General Outcomes: *The student will:*

- demonstrate practical print-based tasks, using single-register printing, and, by applying previously learned printing techniques:
 - prepare camera-ready copy and masters suitable for the printing task; e.g., offset plate, serigraphic stencil, relief lockup
 - reproduce images in appropriate quantity
 - use finishing techniques as required
- demonstrate basic competencies.

COURSE COM2090: AUDIO/VIDEO 1

Level: Intermediate

Theme: Audio/Video/Digital

Prerequisite: None

Description: Students expand on basic audio/video production techniques.

Note: This course can focus on audio and/or video concepts.

General Outcomes: *The student will:*

- complete assignments/projects, using audio/video equipment
- develop skill in using production elements; e.g., lighting, sound, effects
- critique audio/video assignments
- demonstrate basic competencies.

COURSE COM2100: AUDIO/VIDEO 2

Level: Intermediate

Theme: Audio/Video/Digital

Prerequisite: None

Description: Students enhance production skills through application of preproduction and post-production techniques.

General Outcomes: *The student will:*

- apply preproduction, production and post-production techniques to complete an audio/video project
- apply production elements; e.g., lighting, sound, to enhance the production
- apply post-production editing techniques
- demonstrate basic competencies.

COURSE COM2110: ANIMATION 2

Level: Intermediate

Theme: Audio/Video/Digital

Prerequisite: None

Description: Students build skills in planning, idea development and storytelling techniques, and their application through various animation methods.

General Outcomes: *The student will:*

- demonstrate various traditional animation styles, techniques, applications and terminology
- identify and demonstrate principles of animation; e.g., exaggeration, stretch/squash, through project work
- produce a short animation assignment(s) that:
 - develops an idea; e.g., establishes a theme, evokes an emotional response
 - tells a story
- demonstrate basic competencies.

COURSE COM2120: DIGITAL DESIGN 2

Level: Intermediate

Theme: Audio/Video/Digital

Prerequisite: None

Description: Students enhance their abilities to integrate various media for the purpose of producing a multimedia message for a target audience, using the computer as a significant production tool.

General Outcomes: *The student will:*

- design and plan a multimedia message to be communicated to a target audience
- produce and present the message, using two or more media linked through digital technology selected by the student
- evaluate the effectiveness of the message, using an evaluation instrument
- demonstrate basic competencies.

COURSE COM2130: SPECIAL EFFECTS PHOTOGRAPHY

Level: Intermediate

Theme: Photography

Prerequisite: COM1030 Photography 1

Description: Students are introduced to the creative use of the camera, the darkroom and/or digital techniques, in order to produce various photographic effects.

General Outcomes: *The student will:*

- use the camera shutter and aperture to create basic special effects
- apply darkroom/digital techniques to create different photographic effects
- demonstrate basic competencies.

COURSE COM2210: DIGITAL IMAGING 2

Level: Intermediate

Theme: Photography

Prerequisite: None

Description: Students will acquire digital images from a digital camera and one or more other sources. They will extend and refine their knowledge of bitmap editing software and composition principles, and apply more advanced editing techniques to composite images.

General Outcomes: *The student will:*

- acquire, edit, composite and manipulate images from:
 - a digital camera
 - one or more other sources for creating or acquiring digital images
- create and deliver an on-screen presentation of the completed compositions, using a unified theme or style
- demonstrate basic competencies.

GENERAL OUTCOMES: ADVANCED LEVEL

COURSE COM3020: MEDIA DESIGN & ANALYSIS 2

Level: Advanced

Theme: Presentation

Prerequisite: None

Description: Students use school and/or community resources to produce messages for a target audience to be delivered through two or more media.

General Outcomes: *The student will:*

- identify, select, justify and develop a message for a target audience, using two or more media
- analyze the same message, as delivered through different media
- critique media message/product
- demonstrate basic competencies.

COURSE COM3030: SCRIPT WRITING 2

Level: Advanced

Theme: Presentation

Prerequisite: None

Description: Students refine script-writing skills by producing scripts for specific media formats.

General Outcomes: *The student will:*

- demonstrate knowledge and skill specific to writing scripts for selected formats
- select a format; e.g., long, short, and write a script in that format for a target audience
- demonstrate basic competencies.

COURSE COM3040: PHOTOGRAPHY 3

Level: Advanced

Theme: Photography

Prerequisite: None

Description: Students apply various light sources, multiple lighting arrangements and metering techniques with an emphasis on flash and studio lighting.

General Outcomes: *The student will:*

- identify and describe different camera and film formats
- use different camera and film formats
- apply the theory and operation of light-metering devices and electronic flash devices in a photographic assignment
- apply studio lighting techniques to a photographic assignment
- demonstrate basic competencies.

COURSE COM3050: PHOTOJOURNALISM

Level: Advanced

Theme: Photography

Prerequisite: None

Description: Students are introduced to photojournalism.

General Outcomes: *The student will:*

- apply knowledge of composition, lighting, exposure and image processing to photographing specified events
- integrate type and photographs to complete a layout
- identify career options in photojournalism
- demonstrate basic competencies.

COURSE COM3060: PHOTOGRAPHIC TECHNIQUES 2

Level: Advanced

Theme: Photography

Prerequisite: None

Description: Students create special photographic effects through a variety of approaches, including advanced enlarging techniques, high contrast derivations, toning, retouching and print presentation.

General Outcomes: *The student will:*

- use enlarging techniques to achieve a variety of photographic effects
- use retouching techniques to enhance visual quality and/or to achieve different special effects with photographic prints
- alter/convert continuous tone black and white prints through the use of colour and through the use of high contrast materials and techniques
- demonstrate basic competencies.

COURSE COM3070: COLOUR PHOTOGRAPHY

Level: Advanced

Theme: Photography

Prerequisite: COM1030 Photography 1

Description: Students are introduced to colour photography.

General Outcomes: *The student will:*

- identify and describe the additive and subtractive colour processes
- identify and describe the differences between negative and reversal photographic materials
- expose and process negative and/or reversal films and paper
- critique completed photographs
- demonstrate basic competencies.

COURSE COM3080: PRINTING TECHNIQUES 2

Level: Advanced

Theme: Print

Prerequisite: COM2070 Printing Techniques 1

Description: Students are introduced to multiregister reproductive printing.

General Outcomes: *The student will:*

- prepare visual images for printing in at least two colours
- prepare masters required to print images in at least two colours; e.g., offset plate, serigraphic stencil, relief lockup
- print an image in register
- use finishing techniques, as required
- demonstrate basic competencies.

COURSE COM3090: PRINTING APPLICATIONS 2

Level: Advanced

Theme: Print

Prerequisite: COM2080 Printing Applications 1

Description: Students apply the technique of multiregister printing to practical situations.

General Outcomes: *The student will:*

- demonstrate a practical print-based task, applying previously learned techniques
- select a suitable printing method, prepare masters suitable for the printing task; e.g., offset plate, serigraphic stencil, relief lockup, and reproduce in required quantity
- print images in register
- use finishing techniques as required
- demonstrate basic competencies.

COURSE COM3100: AUDIO 3

Level: Advanced

Theme: Audio/Video/Digital

Prerequisite: None

Description: Students plan, develop and produce specific audio projects.

General Outcomes: *The student will:*

- apply preproduction, production and post-production techniques and strategies to complete an audio project
- use audio equipment and various sound recording techniques to enhance the production
- demonstrate basic competencies.

COURSE COM3110: VIDEO 3

Level: Advanced

Theme: Audio/Video/Digital

Prerequisite: None

Description: Students plan, develop and produce specific video projects.

General Outcomes: *The student will:*

- apply preproduction techniques and strategies to produce a video; e.g., prepare a proposal, treatment/script, timeline, shot list, rehearsal schedule
- apply such production elements as lighting, sound, and special effects to the production
- use such post-production techniques/elements as an edit decision list, narration, sound, music, effects or titles to enhance the production
- present the final product to an audience for feedback
- demonstrate basic competencies.

COURSE COM3120: ANIMATION 3

Level: Advanced

Theme: Audio/Video/Digital

Prerequisite: None

Description: Students apply production planning techniques to produce animation that tells a story, communicates an idea or message, or creates a mood or theme. Students select and employ traditional animation techniques for the project work.

General Outcomes: *The student will:*

- prepare for an animation project; e.g., research, story outline, synopsis, resource requirements, timeline
- select and apply animation techniques to communicate story, idea, theme or mood
- demonstrate basic competencies.

COURSE COM3130: DIGITAL DESIGN 3

Level: Advanced

Theme: Audio/Video/Digital

Prerequisite: None

Description: Students develop and produce multimedia messages within a common theme and for a client who has an identified target audience. Students select and use a variety of media and justify their selection based on the strengths of the media and appropriateness to the task. Digital technology forms a key link in all project work.

General Outcomes: *The student will:*

- identify, select and use relevant digital technology methods and processes for message production
- design, produce and present at least two messages within a theme for a specified client and audience
- combine at least three different media in the production of each message
- justify the selection and use of the media chosen based on strength and appropriateness for message delivery
- devise and use an evaluation tool to determine the effectiveness of message delivery
- demonstrate basic competencies.

COURSE COM3210: DIGITAL IMAGING 3

Level: Advanced

Theme: Photography

Prerequisite: None

Description: Students will apply advanced digital imaging software and techniques to develop a digital portfolio that demonstrates creativity and attention to aesthetic concerns. The course requires students to complete a number of projects consistent with assignments frequently encountered in the work world.

General Outcomes: *The student will:*

- acquire, edit, composite and manipulate images from:
 - a digital camera
 - two or more other sources for creating or acquiring digital images
- demonstrate knowledge and control of aesthetics, technical processes and software tools
- present finished compositions in a portfolio suitable for post-secondary application
- demonstrate basic competencies.