ROYAL CANADIAN ARMY CADETS

MASTER CADET

INSTRUCTIONAL GUIDE

SECTION 1

EO C527.01 – EXAMINE CANADIAN ARMY AND OUTDOOR-RELATED EDUCATIONAL AND CAREER OPPORTUNITIES

Total Time:	90 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the completion of this self study package are listed in the lesson specification located in A-CR-CCP-705/PG-001, *Master Cadet Qualification Standard and Plan*, Chapter 4. Specific uses for said resources are identified throughout the self study package within the section for which they are required.

Self study packages are intended to be completed by the cadet independently. More information about self study packages can be found in the foreword and preface.

Review the lesson content and become familiar with the material prior to facilitating this lesson.

Photocopy the self study package located at Attachment A for the cadet.

Photocopy the answer key location at Attachment B but **do not** provide it to the cadet.

PRE-LESSON ASSIGNMENT

Nil.

APPROACH

A self study was chosen for this lesson as it allows the cadet to examine in greater detail Canadian Army and outdoor-related educational and career opportunities at their own learning pace. This encourages the cadet to become more self-reliant and independent by focusing on their own learning instead of learning directed by the instructor.

INTRODUCTION

REVIEW

Nil.

OBJECTIVES

By the end of this lesson the cadet shall have examined Canadian Army and outdoor-related educational and career opportunities.

IMPORTANCE

It is important for cadets to examine Canadian Army and outdoor-related educational and career opportunities as it allows them to prepare for their future by introducing them to some choices that are available as educational and career paths.

SELF STUDY PACKAGE INSTRUCTIONS

OBJECTIVE

The objective of this self study package is to have the cadet examine Canadian Army and outdoor-related educational and career opportunities.

RESOURCES

- Self study package, and
- Pen / pencil.

ACTIVITY LAYOUT

Provide the cadet with a classroom or training area suitable to complete the self study package.

ACTIVITY INSTRUCTIONS

1. Provide the cadet with a copy of the self study package located at Attachment A and a pen / pencil.
2. Allow the cadet 90 minutes to complete the self study package.
3. Provide assistance as required to the cadet.
4. Collect the self study package once the cadet has finished.
5. Correct the self study package with the self study package answer key located at Attachment B.
6. Provide feedback to the cadet and indicate whether or not they have completed the Enabling Objective (EO).
7. Return the completed self study package to the cadet for their future reference.
8. Record the result in the cadet's logbook and Cadet Training Record.

SAFETY

Nil.

END OF LESSON CONFIRMATION

The cadet's completion of the self study package will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK / READING / PRACTICE

Nil.

METHOD OF EVALUATION

Nil.

CLOSING STATEMENT

There are many options available to individuals who wish to pursue a career in either the Canadian Army or outdoor-related fields. Both government-subsidized educations and programs at post-secondary institutions

are building blocks for future success in these fields. By examining the options available, cadets will be better prepared should they decide on a career involving the Canadian Army or outdoors.

INSTRUCTOR NOTES / REMARKS

Nil.

REFERENCES

C1-236 Department of National Defence. (2009). *Canadian Forces Recruiting–Job Explorer*. Retrieved October 20, 2009, from http://www.forces.ca/html/jobexplorer_en.aspx

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C2-270 Capilano University. (2009). *About the outdoor recreation program*. Retrieved October 27, 2009, from http://www.capilanou.ca/programs/outdoor-recreation.html

C2-271 College of the North Atlantic. (2008). *Adventure tourism–outdoor recreation*. Retrieved October 27, 2009, from http://www.cna.nl.ca/schools/TNR/source/adventure.html

C2-273 Lakehead University–School of Outdoor Recreation, Parks & Tourism. (2009). *Let the journey begin*. Retrieved October 27, 2009, from http://www.outdoorrec.lakeheadu.ca

C2-274 Medecine Hat College. (2009). *Ecotourism & outdoor leadership*. Retrieved October 27, 2009, from http://www.mhc.ab.ca/program/ecotourism/default.html

C2-275 Sault College. (2009). *Natural environment and outdoor studies*. Retrieved October 27, 2009, from http:www.saultc.on.ca/Groups/groups.asp?groupcode=NRS

C2-276 Outdoor Adventure Canada. (2009). *Backpacking, canoeing, kayaking and camping*. Retrieved October 27, 2009, from http://www.outdooradventurecanada.com/

C2-278 ISBN 0-8117-2542-1 Shenk, E. (1992). *Outdoor careers: Exploring occupations in outdoor fields*. Harrisburg, PA: Stackpole Books.

CANADIAN ARMY AND OUTDOOR-RELATED EDUCATIONAL AND CAREER OPPORTUNITIES

SECTION 1: CANADIAN ARMY AND OUTDOOR-RELATED EDUCATIONAL OPPORTUNITIES

SECTION 2: CANADIAN ARMY, FEDERAL, PROVINCIAL AND TERRITORIAL GOVERNMENT MINISTRY CAREER OPPORTUNITIES

SECTION 3: MUNICIPAL GOVERNMENT AND PRIVATE SECTOR OUTDOOR-RELATED CAREER OPPORTUNITIES

SECTION 1
CANADIAN ARMY AND OUTDOOR-RELATED EDUCATIONAL OPPORTUNITIES

Canadians have many educational opportunities available to them in the fields of the Canadian Army and outdoors. Educational opportunities can fall into two main categories:

- Canadian Forces (CF) educational opportunities, and
- civilian educational opportunities.

CF EDUCATIONAL OPPORTUNITIES

The CF offers several subsidized education plans. Subsidized education means that your education is paid for by the CF in return for a specified period of service. Once this period of service is complete, you have the option of continuing your service in the CF or choosing to pursue a career in another government department or the private sector. The CF offers education plans at the undergraduate and technician / technologist level. This is based on whether you are enrolling in a job that is performed by an officer or a non-commissioned member (NCM).

Did you know?

The CF refers to specific jobs as trades. Each trade is assigned a Military Occupational Structure Identification (MOSID) number. The Cadet Instructors Cadre (Army) officers' MOSID is 00232-02.

The Regular Officer Training Program (ROTP)

- The Regular Officer Training Program (ROTP) is an entry program to the CF.
- A person enrolling in the ROTP is provided an undergraduate education free of charge and is responsible for four years of service to the CF when their education is complete.
- Undergraduate degrees are completed at the Royal Military College of Canada (RMC); however, in some instances, the degree can be completed at a civilian university.
- RMC offers many of the same undergraduate degree programs that are available at most Canadian universities.

Do you know anyone who attended RMC? What degree program did they complete?

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Figure A-1 RMC Students

Note. From Department of National Defence, 2009, *Royal Military College of Canada*. Retrieved November 18, 2009, from http://www.rmc.ca/hp-pa-002.jpg

More information about degree programs offered at RMC can be found at http://www.rmc.ca

The Continuing Education Officer Training Program (CEOTP)

- The Continuing Education Officer Training Program (CEOTP) is an entry plan to the CF.
- Under the CEOTP, a person with some undergraduate education is enrolled in an in-demand trade and agrees to complete their university degree within a specified amount of time, usually nine years.
- This offers the entrant the ability to complete their degree with CF funding while being employed full-time by the CF.
- Entry into a trade within the CEOTP is very selective and only offered when no other applicants to that trade are available to meet recruiting needs.

The Non-Commissioned Member Subsidized Education Plan (NCM-SEP)

- The Non-Commissioned Member Subsidized Education Plan (NCM-SEP) is a subsidized technician / technologist education level entry program for NCM trades.
- Under the NCM-SEP, a person is enrolled into a trade in the CF and provided a free technician / technologist program at a civilian college or trade school.
- Upon completion, the student is required to serve two months for each month of academic funding beginning on the graduation date from college.
- Once this military service is completed, you can continue with a career in the military or pursue a civilian career.

***Activate Your Brain #1*:**

Name two entry plans for the CF. Explain how they differ.

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CIVILIAN EDUCATIONAL OPPORTUNITIES

Many civilian educational institutions and associations offer programs designed to provide the education required to participate and be employed in outdoor-related activities and careers.

Outdoor Activity Courses and Workshops

There are many educational institutions, professional and recreational associations, and clubs that offer courses and workshops to educate individuals in outdoor activities and skills. Most of these courses are delivered through continuing education programs at colleges in the form of night or weekend classes, but may also be hosted by one of the many professional or recreational associations or societies that support, regulate or govern a specific outdoor activity or skill.

The following table provides a few examples of courses offered by colleges, and associations.

Course or Subject Area	Institution or Association	Duration (approximately)
Wilderness First Aid	Local St John Ambulance Branches	20 hours
Outdoor Safety and Survival	College of the North Atlantic, N.L.	28 hours
Green Check GPS	Nova Scotia Community College, N.S.	7 hours
Wild Edibles and Ecology	Humber College, Ont.	15 hours
Canoe Camping: Lightweight	Humber College, Ont.	30 hours
Hunter Education and Conservation	Lethbridge College, Alta.	10 hours
Avalanche Skills Training	College of the Rockies, B.C.	21 hours
Bicycle Maintenance	College of the Rockies, B.C.	4 hours
Professional Association of Dive Instructors (PADI) Open Water Diver	Local PADI dive shop, club or resort	30 hours
Flatwater Canoeing (Level A, B, or C)	Local ORCKA Instructor, Ont.	4 hours

Did you know?

There are many different courses available throughout Canada covering numerous types of outdoor activities. For more information, search for courses at your local educational institution or recreational association or club.

Association Accreditations

There are many professional and recreational associations that support, regulate or govern almost all outdoor activities in one form or another. Many of these associations offer some form of accreditation to individuals who have demonstrated a degree of proficiency at a given skill or activity. This is usually accomplished by participating in, and completing a course of study supported by the particular association.

In Canada, many recreational associations are provincially-based and within their given discipline focus on skills and activities relevant to the province in which they are located.

The following table provides a few examples of provincially-based recreational associations.

Association	Discipline	Province
Newfoundland and Labrador Paddling Association (NLPA)	Canoeing And Kayaking	Newfoundland and Labrador
Prince Edward Island Snowmobile Association (PEISA)	Snowmobiling	Prince Edward Island
Quebec Climbing Association	Rock Climbing	Quebec
Ontario Recreational Canoe and Kayak Association (ORCKA)	Canoeing And Kayaking	Ontario
Manitoba Geocaching Association (MBGA)	Geocaching	Manitoba
Alberta Conservation Association (ACA)	Hunting, Fishing, and Wildlife Conservation	Alberta
British Columbia River Outfitters Association (BCROA)	River Rafting	British Columbia

POST-SECONDARY EDUCATION OPPORTUNITIES

Have you ever considered a career working in the outdoors? If so, do you know what education you require?

Degree and diploma or certificate programs are delivered as post-secondary education and are designed to meet industry and professional, standards / practices. These programs allow graduates to be employed in various positions in fields, such as bioscience, conservation, agriculture, geoscience, pollution control and recreation. Here is a partial listing of some civilian education institutions and the programs they offer:

DEGREE PROGRAMS

Memorial University (St John's, N.L.)

- Bachelor of Arts (B.A.) in environmental studies,
- Bachelor of Recreation,
- Bachelor of Science (B.Sc.), in:
    - earth sciences,
    - environmental science, or
    - environmental physics.

Dalhousie University (Halifax, N.S.)

- Bachelor of Engineering (B.Eng.), in:
    - biological engineering,
    - environmental engineering, or

    - mineral resource engineering;
- Bachelor of Management, in
    - environment sustainability and society, or
    - sustainable resource and environmental management; and
- Bachelor of Science (B.Sc.) in:
    - earth sciences, and
    - environment sustainability and society,
    - environmental science,
    - marine biology,
    - oceanography, or
    - recreation.

University of Guelph (Guelph, Ont.)

- Bachelor of Engineering (B.Eng.), in:
    - biological engineering,
    - environmental engineering, or
    - water resource engineering;
- Bachelor of Science (B.Sc.), in:
    - food science,
    - animal biology,
    - earth surface science,
    - ecology,
    - environmental toxicology,
    - marine and freshwater biology,
    - plant biotechnology,
    - plant science,
    - wildlife biology, or
    - zoology; and
- Bachelor of Science in Agriculture (B.Sc. [Agr.]), in:
    - agriculture;
    - animal science;
    - crop, horticulture and turfgrass science;

- organic agriculture; or
- urban landscape management; and

- Bachelor of Science in Environmental Sciences (B.Sc. [Env.]), in:
  - ecology,
  - environmental biology,
  - environmental economics and policy,
  - environmental geography,
  - environmental monitoring and analysis,
  - environmetrics and modelling, or
  - natural resources management.

Thompson Rivers University (Kamloops, B.C.)

- Bachelor of natural resource science (BNRS.),
- Bachelor of Science (B.Sc.), in:
  - animal biology,
  - ecology and environmental biology, or
  - environmental chemistry; and
- Bachelor of Tourism Management (BTM.), in
  - adventure tourism, or
  - adventure tourism international development.

University of Northern British Columbia (Prince George, B.C.)

- Bachelor of Arts (B.A.) in,
  - environmental studies,
  - resource based tourism, or
  - nature-based tourism management,
- Bachelor of Applied Science (B.A.Sc.) in environmental engineering; and
- Bachelor of Science (B.Sc.), in:
  - environmental science,
  - natural resources management (forest ecology and management),
  - natural resources management (resource recreation), or
  - natural resources management (wildlife and fisheries).

DIPLOMA OR CERTIFICATE PROGRAMS

Holland College (Charlottetown, P.E.I.)

- Diplomas in applied sciences and engineering technology include:
  - environmental applied science technology, and
  - wildlife conservation technology;
- Certificate in policing / law enforcement for conservation enforcement; and
- Diploma in Sport and Leisure Management.

Sir Stanford Fleming College (Peterborough, Ont.)

- Diploma in community services, in recreation and leisure services.
- Diplomas in environmental and natural resource sciences include:
  - arboriculture,
  - earth resources technician (formerly geology technician),
  - ecological restoration honours B.Sc. - joint Trent-Fleming degree/diploma,
  - ecosystem management technician,
  - ecosystem management technology,
  - electrical power generation technician,
  - environmental technician,
  - environmental technology,
  - fish and wildlife technician,
  - fish and wildlife technology,
  - forestry technician,
  - general arts and science—environmental and natural resource studies option,
  - geographic information systems—applications specialist,
  - geographic information systems—cartographic specialist,
  - geomatics technician,
  - heavy equipment operator,
  - motive power techniques—heavy equipment,
  - natural resources—law enforcement,
  - outdoor adventure skills,
  - sustainable agriculture, and
  - urban forestry.

Saskatchewan Institute of Applied Science and Technology (Saskatoon, Sask.)

- Diplomas programs include:
  - biotechnology,
  - environmental engineering technology,
  - forest ecosystem technology,
  - geomatics technology,
  - recreation and tourism management, and
  - resource and environmental law; and
- Certificate programs include:
  - agricultural machinery technician,
  - beef cattle production,
  - geographic information science for resource management,
  - outdoor power equipment technician (OPET) marine and lawn and garden,
  - outdoor power equipment technician (OPET) motorcycle and snowmobile,
  - vocational forestry—conventional harvesting, and
  - vocational forestry—mechanical harvesting.

Did you know?

There are many different degree, diploma and certificate programs available throughout Canada covering many different areas of education for outdoor-related careers. For more information, search for courses at post-secondary educational institutions.

From the list of degree and diploma / certificate courses given, are there any programs that interest you? Which ones? Where are they offered?

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SECTION 2
CANADIAN ARMY, FEDERAL, PROVINCIAL AND TERRITORIAL GOVERNMENT MINISTRY CAREER OPPORTUNITIES

A career in an outdoor-related field can be challenging and rewarding. The government of Canada and the various provincial and territorial governments are possible employers, offering various types of jobs. Government career opportunities can be divided into two main categories:

- Canadian Army career opportunities, and
- federal, provincial and territorial ministry careers.

MILITARY

The CF offers a range of both full- and part-time career opportunities in Canada's Army. Army trades are divided into officer trades and NCM trades. In the army, officers are leaders and administrators, and NCMs are the technicians and operators. The following are trades offered within the Canadian Army.

Do you know anyone who joined the Canadian Army? Create a list of who they are and to what trade they belong.

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Did you know?

The Canadian Forces Leadership and Recruit School (CFLRS) located in Saint-Jean-sur-Richelieu, Que., is responsible for conducting the basic training for NCMs and officers of the CF's regular force.

ARMY OFFICER

Armour Officer

Figure A-2 Armour Officer

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http:// www.forces.ca/media/_photos/jobshop/

An armour officer is the leader of either eight armoured vehicles in a Reconnaissance Squadron, or a Tank Troop in an Armoured Squadron. They are responsible for soldiers' training, morale, discipline and combat efficiency, and for the operational readiness of their equipment. A reconnaissance troop leader employs stealth, flexibility and innovation on the battlefield, using advanced sensors and equipment, to locate the enemy and identify high-value targets for the commander. A Tank Troop Leader employs mobility, flexibility and shock action on the battlefield and uses a main battle tank's firepower to destroy enemy targets.

Artillery Officer

Figure A-3 Artillery Officer

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

An artillery officer's primary duty is to lead soldiers, solve problems, make timely decisions, demonstrate flexibility and mental agility, and prepare for new and greater responsibilities. In addition to field guns and rockets, missile systems and target acquisition systems, they are expected to become experts with a wide variety of technologically complex equipment including but not limited to laser range finders, fire control computers, communication systems, global positioning systems, surveillance equipment, and unmanned aerial vehicles (UAV). There are three specialized areas for artillery officers: field artillery officer, air defence officer, and target acquisition officer.

Dental Officer

Figure A-4 Dental Officer

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

A dental officer's primary duty is to practice dentistry for CF personnel and in some cases in support of humanitarian operations. In the CF, both at home in Canada and overseas when deployed on operations, the practice includes all aspects of preventive dentistry and the provision of dental treatment for oral diseases, injuries, and defects of teeth and their supporting structures. Dental officers may also be asked to assist other health care personnel.

Electrical and Mechanical Engineering (EME) Officer

Figure A-5 EME Officer

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

EME officers can practice any engineering discipline, as military equipment incorporates the full range of current technology, including thermal, electro-optic and radar sensing and guidance devices; fourth-generation computer hardware, firmware and software; and the most modern electronic, mechanical and hydraulic systems.

Engineering Officer

Figure A-6 Engineering Officer

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

Engineering officers are responsible for force protection tasks wherever they are deployed, which includes the construction of habitable camps. Engineering officers always have to be ready to fight alongside others to accomplish the battle group mission. They may perform tasks, such as breaching minefields, using explosives to destroy a road or bridge, constructing a bridge or ferry using re-usable military equipment, building a combat road, disposing explosive ordnance on the battlefield, or constructing obstacles out of concrete, timber and wire.

Infantry Officer

Figure A-7 Infantry Officer

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

Infantry officers are responsible for the training, combat efficiency, discipline, morale, physical condition and well-being of their soldiers, often under the most demanding circumstances. Since the infantry does not fight alone, infantry officers are trained in the characteristics, tactics and deployment of tactical and close-support aircraft, as well as the other combat arms.

Signals Officer

Figure A-8 Signals Officer

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*.

Signals officers plan and manage communications systems for CF units and headquarters deployed in Canada and around the world, and are responsible for the operations and maintenance of all CF communications systems that are not built into aircraft, boats or ships. As staff officers, they may be employed in policy development and project management.

Retrieved January 9, 2010, from http://
www.forces.ca/media/_photos/jobshop/

Officer (Tri-elemental)

The following officer trades are not exclusively related to a career in the army; however, CF personnel who pursue them as a career are entitled to belong to the army element. They include:

- bioscience officer,
- chaplain,
- health care administration officer,
- intelligence officer,
- legal officer,
- logistics officer,
- medical officer,
- military police officer,
- nursing officer,
- personnel selection officer,
- pharmacy officer,
- physiotherapy officer,
- public affairs officer,
- social work officer, and
- training development officer.

ARMY NCM

Ammunition Technician

Figure A-9 Ammunition Technician

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://
www.forces.ca/media/_photos/jobshop/

Ammunition technicians (AMMO TECH) are responsible for the CF ammunition stockpiles and related explosives' safety programs. In addition to controlling the inventory, they perform technical inspections, tests, proofs, maintenance, modification and logistical disposal of tri-service ammunition.

Armoured Soldier

Figure A-10 Armoured

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

Armoured soldiers are trained as members of the combat arms team, which also includes the infantry, the artillery and the combat engineers. Each armoured soldier belongs to one of the armoured regiments of the Canadian Army, and serves as a part of the crew of an armoured fighting vehicle (AFV).

The primary duties of the Armoured Soldier are to maintain, and operate AFVs, their weapons, communication systems and, gather and relay information about the enemy and the terrain.

Artillery Soldier–Air Defence

Figure A-11 Artillery Soldier–Air Defence

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

Artillery soldiers–air defence are members of air defence artillery units of the Royal Regiment of Canadian Artillery. The air defence artillery is part of the combat arms, which also includes the infantry, the armoured regiments and the combat engineers. Their primary function is to prevent enemy aircraft from interfering with operations, especially by defending airfields.

Artillery soldiers–air defence, typically called air defence gunners, and primarily responsible for the maintenance and operation of anti-aircraft weapon systems.

Artillery Soldier–Field

Figure A-12 Artillery Soldier–Field

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

Artillery soldiers–field defence are members of field artillery units of the Royal Regiment of Canadian Artillery. Field artillery units are part of the combat arms, which also includes the infantry, the armoured regiments, and the combat engineers. The field artillery's contribution is indirect fire delivered in support of the arms that directly engage the enemy.

Artillery soldiers–field defence, typically called field gunners, are primarily responsible for the maintenance and operation of field artillery guns.

Combat Engineer

Figure A-13 Combat Engineer

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

Combat engineers are members of the military engineer branch and of the combat arms, which includes the infantry, the artillery and the armoured regiments. Their job is to ensure that friendly troops can live, move and fight on the battlefield. They also perform construction and maintenance tasks, operate vehicles and equipment in support of engineer operations, and maintain field installations and facilities.

Combat engineers are primarily responsible for construction, demolition, explosive ordnance disposal, and the operation of heave construction equipment.

Communicator Research Operator

Figure A-14 Communicator Research Operator

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

Communicator research operators use a wide variety of sophisticated electronic equipment to intercept and analyze electronic transmissions, including foreign communications. They also operate computer-assisted radio direction-finding equipment in support of search-and-rescue operations.

Communicator research operator are primarily responsible for collecting, processing, analyzing and reporting on electromagnetic activities, as well as establishing and maintaining computer and communication networks.

Dental Technician

Figure A-15 Dental Technician

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

Dental technicians are the members of the CF Health Services health care team who are responsible (with dental officers) for delivering dental services to CF members and, occasionally, their dependants.

A dental technician is primarily responsible for assisting the dental officer, performing preventative dentistry procedures, and maintaining patient records.

Electronic-Optronic Technician–Land

Figure A-16 Electronic-Optronic Technician–Land

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

Electronic-optronic technicians–Land [EO TECH (L)] belong to the Electrical and Mechanical Engineering Branch of the CF. They are the only electronic-optronic technicians dedicated to the Army, but they also support Air Force and Navy requirements.

EO TECH (L)s are primarily responsible for inspecting, testing, diagnosing faults in, adjusting, repairing, reconditioning and modifying electrical, electro-mechanical, electronic, electro-optic and mechanical equipment, optical instruments, and control systems for weapons and missiles.

Geomatics Technician

Figure A-17 Geomatics Technician

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

Geomatics technicians (GEO TECH) are members of the Military Engineering Branch of the CF who provide geomatics support to the Army, the Navy and the Air Force. Their role is to capture, synthesize, store, process, present, disseminate and manage geospatial information. GEO TECHs use some of the most cutting-edge technology.

GEO TECHs are primarily responsible for collecting geospatial data to produce maps, charts and geographic models.

Infantry Soldier

Figure A-18 Infantry Soldier

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

Infantry soldiers are the core of the combat arms team, which includes the Artillery, Armoured Regiments, and the Combat Engineers. Capable of operating anywhere in the world, in any environment—Arctic tundra, mountains, jungle or desert—and in any combination of arms, including parachute, airmobile and amphibious operations, infantry soldiers are responsible for closing on and destroying the enemy.

Infantry soldiers are primarily responsible for engaging in combat operations, operating and maintaining a wide range of personal and sectional weapons, communications equipment, vehicles and mobile weapon systems.

Land Communications and Information Systems Technician

Figure A-19 Land Communications and Information Systems Technician

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

Land communication and information systems technicians (LCIS TECHs) repair and maintain all types of army communications and information systems. These include communications equipment and radio systems, radio relay systems, radar systems, ground surveillance and miscellaneous radiation detection and associated equipment, and cryptographic equipment. LCIS TECHs also maintain strategic, long-range radio communications systems, portable satellite communications systems, microwave systems, personal computers and area networks, and ground telecommunications systems.

Line Technician

Figure A-20 Line Technician

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

Line technicians belong to the Communications and Electronics (C&E) branch of the CF, and are responsible for providing the infrastructure for communications services between combat arms units in the field. This work includes (but is not limited to) designing, planning and installing telecommunications networks of copper and fibre-optic cable, and constructing and maintaining complex antenna systems. Because they work in operational areas, line technicians are also trained as combat soldiers.

Materials Technician

Figure A-21 Materials Technician

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

Materials technicians belong to the Electrical and Mechanical Engineering Branch of the CF. The materials technician is a versatile, highly-skilled person who is usually employed with a Maintenance Unit.

Materials technicians are primarily responsible for skilled tasks, such as welding, machining, sheet metal work, painting, and working with textiles, fibreglass and composites.

Postal Clerk

Figure A-22 Postal Clerk

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

Postal clerks (POST CLKs) provide members of the military and, under some circumstances, their dependants, with a full range of postal services at CF bases and establishments.

Resource Management Support Clerk

Figure A-23 Resource Management Support Clerk

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

The resource management support clerk (RMS CLK) provides administrative and financial support to all military activities. Because it is one of the largest in the CF, this occupation offers employment opportunities that vary widely in working environment and tasks assigned.

Signal Operator

Figure A-24 Signal Operator

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http://www.forces.ca/media/_photos/jobshop/

Signal operators are members of the Communications and Electronics Branch of the CF. Their job is to provide army units with fast, reliable voice and data communications, and they do it by means of top-of-the-line satellite, digitized, fixed, air transportable and mobile information and communications equipment.

Vehicle Technician

Figure A-25 Vehicle Technician

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http:// www.forces.ca/media/_photos/jobshop/

Vehicle Technicians (VEH TECH) belong to the Electrical and Mechanical Engineering Branch of the CF. Each VEH TECH is a member of a team responsible for maintaining, repairing and overhauling the CF's vehicles and related equipment in order to maintain their operational readiness.

Weapons Technician

Figure A-26 Weapon Technician

Note. From Department of National Defence, 2010, *Canadian Forces Recruiting*. Retrieved January 9, 2010, from http:// www.forces.ca/media/_photos/jobshop/

Weapons technicians–land are members of the Electrical and Mechanical Engineering Branch of the CF. They are responsible for the maintenance and repair of weapons, weapons systems and ancillary equipment.

NCM (Tri-elemental)

The following NCM trades are not exclusively related to a career in the Canadian Army; however, CF personnel who pursue them as a career are entitled to belong to the land element. They include:

- biomedical electronics technologist,
- communicator research operator,
- construction technician,
- cook,
- electrical distribution technician,
- electrical generating systems technician,
- intelligence operator,
- medical laboratory technologist,

- medical radiation technologist,
- medical technician,
- military police,
- mobile support equipment operator,
- musician,
- plumbing and heating technician,
- refrigeration and mechanical systems technician,
- resource management support clerk,
- supply technician,
- traffic technician, and
- water, fuels and environmental technician.

If you had your choice of any trade in the Canadian Army, which one would you choose?

***Activate Your Brain #2*:**

List four officer trades and three NCM trades that are available as career options within the Canadian Army.

_____ _____
_____ _____
_____ _____
_____ _____

More information about CF Army careers can be found at http://www.forces.ca/html/jobexplorer_en.aspx

CAREERS IN FEDERAL, PROVINCIAL AND TERRITORIAL GOVERNMENT MINISTRIES

In addition to careers in the military, federal, provincial and territorial government ministries also offer many different employment opportunities relating to the outdoors. These opportunities fall into a broad range of fields, such as research, education, policing, and recreation. The following are a few examples of career opportunities available through federal, provincial and territorial government ministries.

Park Warden / Ranger

Figure A-27 Park Warden / Ranger

Note. From Parks Canada, 2010, *The Conservation Service*. Retrieved February 11, 2010, from http://www.pc.gc.ca/~/media/pn-np/qc/mingan/a-f/Cons_garde.ashx

Park wardens / rangers play an important role in protecting Canada's natural, cultural and historic resources. Park wardens / rangers provide front line education and enforcement of rules and regulations as they pertain to Canada's national and provincial parks. The role of a park warden / ranger varies depending on the park.

Forestry Specialist

Figure A-28 Forestry Specialist

Note. From Sir Stanford Fleming College, 2010, *Forestry Technician*. Retrieved February 11, 2010, from http://www.flemingc.on.ca/Programs/Images/FT/

Forestry specialists work in a variety of areas including research, management, harvesting, and conservation. They are involved in many of the hands-on tasks associated with the forestry industry, such as collecting information on tree growth, monitoring planting operations, and inspecting fisheries. Many forestry specialists are involved in silviculture (tree planting). They plan the locations of silviculture sites, prepare the area for planting, and plant and tend seedlings. They may also perform research to determine the age and health of existing trees and forests.

Other areas in which forest specialists may work include forest management, disease and insect control, fire prevention, enforcing regulations (such as those concerning fire safety and accident prevention), monitoring the activities of logging companies, providing advice and information to woodlot owners and the general public, forest harvesting, and mapping forests.

Conservation Officer

Figure A-29 Conservation Officer

Note. From Ontario–Ministry of Natural resources, 2010, *Conservation Officer*. Retrieved February 11, 2010, from http://www.mnr.gov.on.ca/images/

Conservation officers are specialists whose job is to preserve and protect Canada's natural resources. Conservation officers are peace officers trained to the same standard as regular police officers. Conservation officers focus their enforcement on the natural resource and public safety provisions of both provincial and federal legislation, including the Criminal Code of Canada.

Outdoor Education

As society continues to become more urbanized, many boards of education, as well as private companies across Canada are establishing outdoor education centres (OECs). OECs provide students with the opportunity to experience learning in a natural environment. Teachers can use the facilities at an OEC to deliver or amplify classes in many different subject areas, such as art, history, geography, science, and physical education. Some boards of education staff OECs with teachers specializing in areas of outdoor leadership and education, allowing them to deliver instruction and run more in-depth activities in areas, such as adventure training and outdoor recreation.

Figure A-30 Outdoor Education

Note. From MacSkimming Outdoor Education Centre, 2010, *Profile*. Retrieved February 11, 2010, from http://www.ocdsb.edu.on.ca/Secondary_Websites/continuweb/outdoor

Other careers offered through federal, provincial and territorial governments may include:

- wildlife biologist,
- research biologist,
- geographer,
- cartographer,
- geologist,
- geophysicist,
- hydrologist, and
- land planner.

More information on careers in the federal, provincial and territorial governments can be found at the following government websites (under the desired ministry):

Government of Canada	http://www.canada.gc.ca
Government of Alberta	http://www.gov.ab.ca
Government of British Columbia	http://www.gov.bc.ca
Government of Manitoba	http://www.gov.mb.ca
Government of New Brunswick	http://www.gnb.ca
Government of Newfoundland and Labrador	http://www.gov.nf.ca
Government of Northwest Territories	http://www.gov.nt.ca
Government of Nova Scotia	http://www.gov.ns.ca
Government of Nunavut	http://www.gov.nu.ca
Government of Ontario	http://www.ontario.ca
Government of Prince Edward Island	http://www.gov.pe.ca
Government of Québec	http://www.gouv.qc.ca
Government of Saskatchewan	http://www.gov.sk.ca/
Government of Yukon	http://www.gov.yk.ca

SECTION 3
MUNICIPAL GOVERNMENT AND PRIVATE SECTOR OUTDOOR-RELATED CAREER OPPORTUNITIES

There are great outdoor-related careers provided by municipal governments, private sector companies and organizations within Canada and the world. Many of these careers are interrelated and interdependent on one another as well as with other government careers. For example, those in commercial forestry work with government forestry specialists to ensure compliance with forestry regulations and forestry planning initiatives, those in education may have to liaise with municipal parks and recreation staff to use the city's outdoor resources.

Why do you think outdoor-related careers are so interrelated?

The following are just some of the careers available either through municipal governments or private sector companies that relate to the outdoors.

BIOSCIENCE

Bioscience careers cover a large range of different fields, such as those in biology and zoology. Bioscience careers focus on studying living organisms and have many applications in the outdoors and provide knowledge that is essential for governments and private sector companies. Biological studies help provide specific information on plants and animals. The following are some examples of some careers in the bioscience field:

Biology careers include:

- wildlife biologist,
- research biologist,
- animal rehabilitator,
- ornithologist,
- marine and aquatic biologist,
- marine mammalogist,
- fish biologist,
- oceanographer, and
- botanist.

Zoology careers include:

- zookeeper, and
- zoologist.

ECOLOGICAL

Ecological careers are similar to that of bioscience careers, both are focused on the study of living organisms, however, ecological careers focus on how living organisms interact with both each other and outside influences

(such as pollution and industrial practices). Ecological studies can provide valuable information about the effects of disease, pollution, fishing, hunting, and forestry on plants and animals.

Ecological careers include:

- plant ecologist, and
- animal ecologist.

CONSERVATION

Many of the careers working in the outdoors focus on or have some connection to conservation. Careers in conservation focus on the reservation, protection, and restoration of the natural environment and wildlife. Today, even many industries, such as forestry, mining and fisheries, which were historically criticized for their negative effect on the environment, are now beginning to be forced by conscience and / or legislation to adopt policies that help with the conservation of the natural environment. Although most conservation careers are government-oriented, some of the private sector careers include:

- conservationist,
- tree planter,
- forest manager, and
- range manager.

AGRICULTURAL

Agriculture has changed dramatically over the past few hundred years. No longer is the sole career in the field a farmer. Today's agricultural industry is a highly-scientific and technically-advanced one. Many modern crops and even livestock are now genetically enhanced or selectively bred, to produce larger and more frequent yields or bigger, meatier animals. The modern agricultural industry requires the support of many different careers in science, technology and physical labour. The following are some of the careers in the agricultural industry:

- agronomist,
- agricultural pest control,
- entomologist,
- plant physiologist,
- agricultural science,
- veterinarian,
- chemist,
- chemical technician,
- biotechnologist,
- farmer,
- farm hand,
- farm machinery operator, and
- farm machinery technician.

LAND USE PLANNING

With modern society trying to establish a balance between the requirement of land for urban use and the desire to preserve our natural environment, all sectors of society both government and private are striving to make best use of the available land. To do this, the lands used for industries, infrastructure and residential areas must be carefully planned, designed and located to limit the effect on the environment and minimize urban sprawl. The following are some examples of the careers in land use planning:

- land planners,
- civic engineers,
- landscape architects,
- geographers, and
- cartographers.

GEOSCIENCE

Geoscience careers focus on the study of the physical material elements of the earth, unlike bioscience careers which study living organisms. Geoscience covers a variety of areas, such as the study of rocks and rock formation, the atmosphere, the oceans, and the Earth's magnetic fields. Geoscience careers provide governments and industries with information a variety of information from location of mineral and oil deposits, to the effects of the greenhouse gases on the ozone layer, to predicting natural disasters, such as earthquakes and volcanoes. The following are some examples of geoscience careers:

- geologists,
- geophysicists, and
- hydrologists.

POLLUTION CONTROL

Modern society produces vast amounts of pollution, to maintain our planet for future generations we must take care to control, limit and process pollutants in order to minimize their effects on the environment. The following are examples of some of the main careers in pollution control:

Water treatment careers include:

- pump station operator,
- water treatment plant operator, and
- water filter cleaner.

Wastewater treatment careers include:

- industrial waste inspector,
- sewer maintenance worker,
- mechanic,
- plant attendant,

- wastewater treatment plant operator, and
- technicians.

Environmental engineering careers include:

- sanitary engineer,
- hydrologic engineer,
- oil pollution control engineers,
- civil engineers,
- waste management engineers,
- waste management specialist,
- air quality engineer,
- chemical engineer,
- air quality specialist, and
- air quality technician.

RECREATION

There are many careers and part-time jobs available in the field of recreation. From working at community youth camps to guiding experienced adventurers down a white water river, the positions in this field are as vast as the topic itself. As society adapts to changing trends in travel, with more people choosing to travel at younger ages, looking for thrills over the typical sightseeing vacations, the demands for outdoor adventure activities are greatly increasing.

Think of all the sports, outdoor activities, community recreation programs, and fitness programs that you have either participated in or seen others participate in; now think that for every one of those activities there were people employed to run that activity.

The following are just a few of the many types of careers available in the field of recreation:

- tourism and resort operator,
- camp counsellors / director,
- recreation programmer,
- ski school director,
- adventure guide,
- park planner and manager,
- heritage interpreter,

- owner / operator of establishments, such as:
  - fishing / hunting camps,
  - climbing gyms,
  - adventure recreation, and
  - outdoor stores;
- social worker,
- teacher / instructor (outdoor education or adventure activities), and
- wilderness-based therapeutic recreation programmer.

***Activate Your Brain #3*:**

List the eight different municipal government and private sector outdoor career categories.

_____	_____
_____	_____
_____	_____
_____	_____

CONCLUSION

As you decide on your future educational and career plans, many opportunities are available to you. If you decide to pursue Canadian Army or outdoor career, you now have some knowledge to help make a decision on what path you wish to take.

Even if your career path does not lead to one within the Canadian Army or outdoor environment, the knowledge gained here enhances your understanding of the varied and important jobs related to the outdoor fields.

Congratulations, you have completed your self study package on EO C527.01 (Examine Canadian Army and Outdoor-Related Educational and Career Opportunities). Complete the following exercise and hand your completed self study package to the Training Officer / Course Officer who will record your completion in your Master Cadet logbook.

FINAL EXERCISE

Cadet's Name: _____ Date: _____

1. Describe the Regular Officer Training Program (ROTP).

2. Where is the Canadian Forces Leadership and Recruit School (CFLRS) located?

3. What are the general differences between non-commissioned members and officers?

4. What are the main duties of an infantry soldier?

5. What is the main difference between bioscience careers and ecological careers?

6. List six possible careers available in the field of recreation.

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ACTIVATE YOUR BRAIN ANSWER KEY

***Activate Your Brain #1*:**

Name two entry plans for the CF. Explain how they differ.

ROTP, CEOTP, or NCM-SEP. The ROTP and CEOTP are officer entry plans while NCM-SEP is for NCM trades. ROTP candidates receive a full subsidized education, while CEOTP candidates receive subsidization to complete their already obtained partial degree.

***Activate Your Brain #2*:**

List four officer trades and three NCM trades that are available as a career option in the Canadian Army.

Officer Trades	NCM Trades
Armour Officer Artillery Officer Dental Officer Electrical and Mechanical Engineering Officer Engineering Officer Infantry Officer Signals Officer	Ammunition Technician Armoured Soldier Artillery Soldier–Air Defence Artillery Soldier–Field Combat Engineer Communicator Research Operator Dental Technician Electronic-Optronic Technician–Land Geomatics Technician Infantry Soldier Land Communications and Information Systems Technician Line Technician Materials Technician Postal Clerk Resource Management Support Clerk Signal Operator Vehicle Technician Weapons Technician

***Activate Your Brain #3*:**

List the eight different municipal government and private sector outdoor career categories.

Bioscience	Land use planning
Ecological	Geoscience
Conservation	Pollution control
Agricultural	Recreation

FINAL EXERCISE ANSWER KEY

1. Describe the Regular Officer Training Program (ROTP).

The Regular Officer Training Program (ROTP) is an entry program to the CF. A person enrolling in ROTP would be provided an undergraduate education free of charge and be responsible for four years service to the CF when their education is complete. Undergraduate degrees are completed at the Royal Military College of Canada (RMC), however in some instances the degree can be completed at a civilian university. RMC offers many of the same undergraduate degree programs that are available at most Canadian universities.

2. Where is the Canadian Forces Leadership and Recruit School (CFLRS) located?

Saint-Jean-sur-Richelieu, Quebec.

3. What are the general differences between non-commissioned members and officers?

Officers are leaders and administrators, and NCMs are the technicians and operators.

4. What are the main duties of an infantry soldier?

Infantry Soldiers are primarily responsible for engaging in combat operations, operating and maintaining a wide range of personal and sectional weapons, communications equipment, vehicles and mobile weapon systems.

5. What is the main difference between bioscience careers and ecological careers?

Bioscience careers focus on studying living organisms, and ecological careers focus on how living organisms interact with both each other and outside influences.

6. List six possible careers available in the field of recreation.

Tourism and resort operators, camp counsellors / directors, recreation programmers, ski school directors, adventure guides, park planners and managers, heritage interpreters, owner / operator of establishments such as: fishing / hunting camps, climbing gyms, adventure recreation, and outdoor stores; social workers, teachers / instructors (outdoor education or adventure activities), and wilderness-based therapeutic recreation programmers.