

MINIMUM ACADEMIC REQUIREMENTS

Completion of the Environmental Engineering Technician Program.

RECOMMENDATIONS

Same as Environmental Engineering Technology.

DISTANCE EDUCATION

This program is also available via Distance Education (prepared printed and audio/visual packages supplemented by direct audio communication with the faculty). With the new Certification system in place in Ontario, this is an excellent opportunity for those working in municipal and industrial environmental control plants to upgrade their skills so they may write higher level certification papers. This may be done on a part-time basis in their home community with a short residency requirement in Sault Ste. Marie or other urban centers. A flexible system of credits for prior education and experience in related fields is in place. If interested in enrolling in the Distance Education Program, please contact the Registrar's Office at Sault College.

PROGRAM OF STUDY

Co-operative Education

CWE300-3 Co-op Placement III

| | Fall | Winter | Summer | |
|--------|---------|---------|---------|--|
| Year 1 | Sem.I | Sem. II | Co-op | |
| Year 2 | Sem.III | Co-op | Sem. IV | |
| Year 3 | Co-op | Sem. V | Sem. VI | |

Semester 1

| ARC110-5 | Drafting & Design | |
|----------|-----------------------------|--|
| BIO125-4 | Aquatic Biology | |
| CHM104-5 | Prin of Chem. I | |
| ENG120-3 | Communication Skills | |
| HDG104-1 | Career Dev. | |
| MTH120-4 | Technical Math | |
| PHY100-3 | Applied Physics I | |
| SAF200-3 | Occup Health/Safety | |

Semester 2

| BIO129-4 | Water Pollution |
|----------|-----------------------|
| CHM218-5 | Chemistry II |
| CWE100-3 | Co-op Placement |
| EDP130-2 | Comp. Con & App. |
| ENG210-3 | Technical Report. |
| ENV200-4 | Industrial Pro. |
| MTH220-4 | Technical Math |
| PHY118-3 | Applied Physics II |
| SAF200-3 | Occ Health & Safe. |
| | |

Semester 3

ARC231-3 CHM230-4 CIV110-4 Soil Mechanics Water Chem, Mun.Adm.& Serv. CWE200-3Co-op Place. IIEDP130-2Comp. Con & App.MTH255-4Intro StatisticsWTR226-5Wastewater Treat.WTR330-5Hydraulics

Semester 4

| CWE300-3 | Co-Op Placement |
|----------|---------------------|
| FOR318-4 | Watershed Manag. |
| MTH208-4 | Calculus |
| WTR201-4 | Water Suppl. Treat. |
| WTR210-5 | Hydrology |
| WTR326-4 | Applied Micro. |

Semester 5

CHM221-4 Analyt Chem CIV215-3 Project Manag & Law ENG315-3 Adv Read & Writing MTH208-4 Calculus ENV300-4 Atmospheric Pollut PPE344-5 Process Control PPE345-4 **Applied Statistics** WTR323-4 **Environmental Projec**

Semester 6

| BUS223-2 | Human Relations |
|----------|-----------------------------|
| ENV303-5 | Air Monitor Analy. |
| ENV320-3 | Environmental Law |
| WTR320-2 | Poll. Economics |
| WTR324-3 | Environ Impact Assmt |
| WTR327-5 | Adv Wastewater Treat |
| WTR329-4 | Hazard Waste Dispos |

FORESTRY TECHNICIAN CO-OPERATIVE EDUCATION

PROGRAM (2 years - 4 semesters)

The two year Forestry Technician Program offered at Sault College is designed to prepare graduates with a wide range of skills, enabling them to work with professional foresters, biologists and other scientists. Extensive field work is carried out daily. Annual field camps are part of the program. Students learn about logging, the manufacture of forest products, forest management, forestry laws, forest ecology, and research in the Forestry field. Furthermore, the sustainable development concept is defined, discussed and applied in practical ways. Sault Ste. Marie is an appropriate setting for learning about the various forestry activities. It is located in the heart of the Great Lakes mixed forest, with ready access to the boreal forest to the north.

The Great Lakes Forestry Centre, the Ontario Forest Research Institute, the Forest Pest Management Institute, the Ontario

Aviation and F ing and inven Ministry of N nunicipal fish Mill, and seven near the Sault.

Sault College endorses the C a career in Na contact your n

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CAREER PA

Graduates of ment under a Timber Tec Technician, Disease Sur and Wildlifd include Yard Scaler, Surve ing number ing/contracti nies to obtain

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Transfer to arranged fo Recreation,

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The Fore Semester

Aviation and Fire Management Centre, important forest harvesting and inventory offices, The Ontario Forest Research Institute, a Ministry of Natural Resources District Office, provincial and municipal fish hatcheries, St. Marys Paper, G.W. Martin Veneer Mill, and several other forest product companies are located in or near the Sault.

Sault College's School of Natural Resources supports and endorses the Ontario Ranger Program for individuals interested in a career in Natural Resources in Ontario. For more information, contact your nearest Ministry of Natural Resources District Office.

Graduates of this program who have completed two Co-operative Education electives (HDG104 and CWF100) are eligible to continue their studies in one of three technology options - Fish and Wildlife, Forest Management or Parks and Forest Recreation.

CAREER PATHS

Graduates of the Forestry Technician Program may find employment under a variety of job titles. Some of these are as follows: Timber Technician, Assistant Park Superintendent, Fire Technician, Research Assistant/Technician, Forest Insect and Disease Survey Ranger, Park Maintenance Foreman and Fish and Wildlife Technician. Other potential employment positions include Yard Foreman, Park Attendant, Cutter/Skidder Operator, Scaler, Survey Assistant and Operations Technician. An increasing number of graduates are finding employment with consulting/contracting firms, while others are forming their own companies to obtain similar contracts.

A majority of the Forestry Technician graduates find seasonal employment in three, six or nine month renewable contracts. It should be noted that it may take 18 - 36 months, or more, of proven experience to secure a permanent full-time position. Many of our Forestry Technician graduates continue their education in one of the three Co-operative Education Technology options.

Transfer to a B.Sc.F. Program at Lakehead University has been arranged for graduates of our Fish & Wildlife, Parks and Forest Recreation, and Forest Management Technology Programs.

MINIMUM ACADEMIC REQUIREMENTS

Ontario Secondary School Diploma with Grade 12 English and Grade 11 Technical Mathematics at the general level. Mature students may apply.

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Completion of Grade 11 or 12 Biology at the general level and Technical Mathematics at Level IV or advanced Mathematics are brongly recommended. Business mathematics is not acceptable ^{for} admission to the Forestry Technician Program.

MISCELLANEOUS NOTES

est Research the Forestry Technician Program accepts new entrants into the Ontar vemester 1 in September and January of each year. The order of courses is modified for the January intake.

If, after testing, students are found to require additional work in English, extra tutorial class time will be assigned. Also, students with less than 65% in their last general level high school Mathematics course, or 55% in their last advanced level high school Mathematics course, may be assigned extra tutorial class time as well.

This is a co-op program requiring the completion of one work placement for graduation.

PROGRAM OF STUDY

Co-operative Education

| HDG104-1 | Career Development | | |
|----------|--------------------|--|--|
| CWF100-3 | Co-op Placement I | | |
| CWF200-3 | Co-op Placement II | | |

| Faii | | winter | Summer | |
|---------|---------|---------|--------|--|
| Year 1 | Sem. I | Sem. II | Co-op | |
| Year 2 | Sem. II | Sem. IV | Co-op | |
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Semester VI

*Third year options

Semester 1

| ENG120-3 | Comm. Skills |
|----------|---------------------|
| FOR100-2 | Introd to Forestry |
| FOR102-3 | Descript Dendrology |
| FOR103-4 | Forest Protection |
| FOR115-3 | Mapping |
| FOR118-2 | Fall Camp 1st Yr. |
| FOR119-4 | Forest Mensur. I |
| HDG104-1 | Career Dev. |
| MTH113-4 | Tech. Mathematic |
| SCI115-3 | Enviro Science |

Semester 2

| BIO126-3 | Forest Biology | |
|----------|-----------------------------|--|
| EDP130-2 | Computer Con & App | |
| ENG210-3 | Technical Report. | |
| FOR104-4 | Photogrammetry | |
| FOR107-3 | Descript Dendrology | |
| FOR112-3 | Forest Entomology | |
| FOR239-4 | For Mensur. II | |
| MTH126-4 | Technical Mathematic | |
| | | |

Semester 3

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| BIO114-3 | Biology/Ecology | | |
|----------|---------------------|--|--|
| BIO211-3 | Environment Biology | | |
| CWF100-3 | Co-op Placement | | |
| FOR200-4 | Silviculture | | |
| FOR110-4 | Forest Utilization | | |





FOR222-4 Watershed Manag. MTH255-4 Intro Statistics

| Semester 4 | |
|------------|----------------------|
| CFW200-3 | Co-Op Placement II |
| ENG305-3 | Read & Writ-Forestry |
| FOR114-3 | Forest Pathology |
| FOR215-4 | Forest Roads |
| FOR220-4 | Integ. Res. Manag. |
| BUS223-2 | Human Relations |
| FOR211-2 | Forestry Law |
| | |

Students in Semester 4 will also choose an introduction to third year option.

FISH AND WILDLIFE TECHNOLOGY-CO-OPERATIVE EDUCATION

PROGRAM (Third Year Option- 2 semesters)

The Fish and Wildlife Technology Program is designed to extend the broad education provided in Forestry and related technical programs. Students will concentrate on subjects which are of particular interest to them. The large number of field-oriented projects give the students an opportunity to use the knowledge they have acquired in theory classes. These often involve applications of computers.

A main objective of the program is to develop the student's initiative, self-motivation and confidence in working independently. Students conduct lake, stream and wildlife population surveys in the field. The habitat and requirements of important fish and wildlife species are considered in depth, as well as current methods of habitat analysis and improvement. The program also includes a comprehensive study of major acts, regulations and enforcement procedures in planning and carrying out various projects in ways compatible with the sustainable development concept directly related to fish and game management.

The Sault-Algoma region is home to many fisheries and much wildlife activity. A new Ontario government trout hatchery, a modern municipal salmon hatchery, and a smaller facility run by a Fish and Game Association all operate nearby. The Ontario Ministry of Natural Resources has four district/area offices, each with fisheries and wildlife programs, within Sault College's region. Environment Canada operates a major acid precipitation monitoring program and the Forest Pest Management Institute does studies on the effects of pesticides on fish and wildlife resources.

The increased emphasis on tourism in the region includes management plans to increase fish and game resources in the area. Increases in fishing and hunting renewal and maintenance needs ensure greater opportunities for graduates in future years. and CWF100) or related Natural Resources Program is required.

Graduates have the added advantage of two diplomas: 0.0R102-3 Forestry Technician Diploma and the Fish and Wildlin 0.0R103-4 Technology Diploma, thus widening their career opportunitie 0.0R115-3 over graduates holding a single, specialized diploma. 0.0R118-2 0.0R119-4

Mature students with several years work related experience DG104-1 forestry or natural resources will be considered by a College CH15-3 Admission Board.

Transfer to a B.Sc. F. Program at Lakehead University has been emester 2 arranged for graduates of our Fish & Wildlife, Parks and Fore 20126-3 Recreation, and Forest Management Technology Programs. DP130-2 avG210-3

As for all "Thru-way" Programs which offer diplomas at the com OR104-4 pletion of year one or two and have an additional year of stud OR107-3 ies, these program offerings are available only if there is sufficien OR112-3 enrolment.

CAREER PATHS

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Natural resource agencies and industrial users of our forests an semester 3 becoming more and more involved in fish and wildlife manage 10114-3 ment. It is anticipated that the demand for graduates with this type IO211-3 of training will increase as environmental assessment of forestr WF100-3 operations becomes mandatory. Successful employment OR200-4 graduates may be found as Fish and Wildlife Technicians OR110-4 Conservation Officers, Research Technologists, Fish Hatchen OR200-4 Technicians, Waterfowl Survey Technicians, and Integrated OR219-3 Resource Management Technicians/ Technologists. OR221-2

MINIMUM ACADEMIC REQUIREMENTS

FOR222-4 MTH255-4

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Completion of a Forestry Technician or related Natural Resource SUR108-3 Program, with Co-operative Education credits. Applicants with

out the Co-operative Education credits (HDG104 and CWF100 from Sault College or from other institutions must register for and complete these Co-op courses, using self-study packages CWF200-3 before final admittance is given. The CWF100 self-study package is available to those with 4 months relevant work expe FOR114-3 rience. FOR215-4 FOR220-4

| MISCELLAILEOUS NOTES | | | BUS 223-2 BFOR211-2 | |
|----------------------------|---|--------------------------------------|-----------------------------------|--|
| placements f | or graduation. | equiring th | e completion of two wor | Students in Se year option |
| Co-operativ CWF300-3 | e Education Co-op P | lacement III | r | Semester 5 CWF300-3 FOR312-6 |
| Year 1 Year 2 Year 3 | Fall Sem. I Sem.III Co-op Semester VI | Winter Sem.II Sem.IV Sem. V | Summer Co-op Co-op Co-op | FOR325-2 FOR327-3 FOR364-6 FOR365-3 FOR366-2 FOR366-2 |