

# Forest Harvesting Equipment Operator

## 14 Week Full-time Non-Credit Certificate Program

### Program Overview

Prepare for employment as a Forest Harvesting Equipment Operator in a variety of forestry settings. Through this program, students will gain the fundamental knowledge and the basic skills required to safely operate and maintain the feller buncher and processor equipment.

### Career Opportunities

Upon successful completion and graduation from the program, students will have the entry-level skills to work as feller buncher and/or processor operators in the forestry industry.

### Program Goals

Participants in the program will:

1. Develop an understanding of practical and theoretical concepts.
2. Develop skills through simulator training.
3. Apply the theory through hands-on training.
4. Gain the formal training to work in forest harvesting operations.

### Program Format

The total length of the program is 14 weeks, which includes completing work assignments on both the feller buncher and processor simulators. The students must meet the minimum marks required by all courses to be placed in a practicum placement. The practicum placement is 200 hours in length and allows the students to put to practice the skills and knowledge learned throughout the program.



### Program Outline

This program totals 489 hours of instruction, which includes 249 hours in the classroom, 40 hours for each student on the simulator, and 200 hours of practicum placement. Courses may be delivered in any semester.

### Employability Skills

- ◆ Communication Skills In The Workplace (SWFB 002) – 6 hours
- ◆ Employability Skills (SWFB 003) – 17 hours
- ◆ Business Math For Operators (SWFB 004) – 12 hours

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## Industry Certificates

- ◆ Occupational First Aid - Level 1 (QOFA 001) – 8 hours
- ◆ Occupational First Aid - Transportation Endorsement (QOFA 004) – 8 hours
- ◆ What's WHMIS (QWHM 003) – 3 hours
- ◆ Transportation Of Dangerous Goods (QTDG 001) – 4 hours
- ◆ WorkSafe: Hazard Recognition & Control (QWSH 001) – 8 hours

## Heavy Equipment –

### Basic Mechanics, Servicing and Operation

#### Basic Mechanics (SWFB 005) – 16 hours

An introduction to basic mechanics of the equipment. Topics include: machine terminology; components and operation of the feller buncher and processor including engine operation, fuel systems, cooling systems, air intake and exhaust systems, starting and charging systems, hydraulic system, and undercarriage system; and identification of safety hazards.

#### Service And Maintenance (SWFB 006) – 30 hours

An introduction to basic servicing and maintenance of the equipment. Topics include: use of tools; use of lubricants, oils and filters; regular maintenance of engine system, fuel system, cooling systems, air intake and exhaust systems, starting and charging systems, hydraulic systems, implements, undercarriage; and basic troubleshooting procedures.

#### Machine Operation (SWFB 007) – 28 hours

An introduction to the skills and knowledge to safely and effectively operate the feller buncher and processor equipment. Topics include: pre-start and start-up procedures; using machine controls; loading and unloading; shutdown and lubricating procedures.

## Forestry Skills

### Forest Stewardship and Ecosystems Functions

The Forest Stewardship Training Module prepares forest harvesters throughout British Columbia to conduct land based timber harvesting operational activities according to Best Management Practices (BMPs) based on basic ecological principles and functions and sound sustainable forest management principles and forest stewardship concepts embodied in all forest management legislation.

#### Basic Forest Surveying And Mapping (SWFB 010) – 8 hours

An introduction to current methods used to survey and map forested areas in BC. Topics include: information obtained from a forest survey; surveying principles; types and methods of forest surveys; basic survey procedures.

### Tree Biology

#### (SWFB 011) – 4 hours

An introduction to tree biology. Topics include: tree anatomy; parts of a tree and their function; photosynthesis; respiration; transpiration; absorption, translocation and the vascular system; growth and development; insects and pathogens; implications for the logger.

### Tree Species Identification

#### (SWFB 012) – 8 hours

An introduction to tree species identification. Topics include: plant classification and scientific names; use of plant characteristics for tree identification; and skill practice in identification of commercial tree species.

### Orientation To Timber Cruising

#### (SWFB 013) – 8 hours

An orientation to current and future timber cruising methods employed by the Ministry of Forests and Range for the appraisal of standing crown timber.

### Introduction To Log Scaling And Grading

#### (SWFB 015) – 8 hours

An introduction to the process and procedures used to measure the volume and value of harvested logs in British Columbia.

### Introduction To Harvesting Methods, Road Construction, And Log Waste Assessment

#### (SWFB 016) – 8 hours

An introduction to forest harvesting systems and forest road construction practices and procedures common in British Columbia. The focus will be on harvest systems commonly used in British Columbia, and Road construction, maintenance and deactivation procedures. Included is an introduction to the purpose, processes and procedures used to survey and assess logging waste in British Columbia.

### Chainsaw Operation And Safety - Basic Course

#### (SWFB 017) – 8 hours

An introduction to basic chainsaw operation, maintenance and safety. Topics include: safety precautions and protective equipment; hazard assessment; regulatory requirements; injury prevention; chainsaw operation and handling skills; and chainsaw maintenance.

### Soils Conservation For Equipment Operators

#### (SWFB 018) – 7 hours

An overview of soil disturbance and soil conservation practices, designed for forest operators involved with logging operations. Topics include: the science underlying soil disturbance survey procedures; maximum soil disturbance limits and how they are applied; and assessing and preventing soil disturbance in the field.

### **S-100 Basic Fire Suppression & Safety (QFIR 002) – 16 hours**

This course meets WCB and BC Ministry of Forests and Range regulations and training requirements for forest fire fighters. Topics include: fireline safety; fundamentals of fire fighting and fire suppression; fire behaviour; tools and equipment; and water delivery using portable pumps and gravity systems.

### **BC Timber Sales (BCTS) Environmental Management System And Spill Response**

#### **(SWFB 020) – 4 hours**

An introduction to Environmental Management System (EMS) requirements and information regarding spills and spill response.

### **Wildlife Danger Tree Assessors Course**

#### **(SWFB 022) – 16 hours**

An introduction to identification of wildlife trees and assessment to ensure worker safety and habitat protection when operating around wildlife/dangerous trees. Topics include: assessing wildlife habitat; assessing failure potential and hazards; determining response and management procedures. This course is recognized by WorkSafe BC, and BC Ministry of Forests and Range.

### **Simulator Experience**

#### **Simulator Training - Feller Buncher/Processor**

#### **(SWFB 023) – 40 hours**

This course provides training with a logging equipment simulator, introducing the fundamental skills and techniques to operate harvest processors and feller bunchers.

### **Practicum Placement**

#### **Practicum Placement**

#### **(SWFB 024) – 200 hours (40 hours observation, 160 machine time)**

**Total Program Hours     489**

## **Admission Requirements**

The following admission requirements must be met for entry to the program:

- ◆ Grade 12 completion, or equivalent OR mature student status (19 years or older).
- ◆ Successful completion of assessment testing (Math, English, Mechanical Reasoning).\*
- ◆ Submission of a Personal Profile.
- ◆ Minimum of 19 years of age.

\*Call Student Services (Nanaimo) to book a seat for the assessment (250) 740-6416, or contact your nearest Vancouver Island University campus.

Students will be required to:

- ◆ Complete a computer simulator assessment. Students will be contacted with appointment time and dates.

Students may be required to:

- ◆ Sit an interview with program staff and industry.

Students should also possess:

- ◆ Physical fitness and ability to adapt to working conditions.
- ◆ Good hand-eye coordination.
- ◆ Good health; free of vision, hearing or respiratory ailments as a hiring requirement.

## **How To Apply**

- ◆ Complete the Vancouver Island University [Application for Admission form](#) and include original transcripts.
- ◆ \$30 application fee for first time applicants of Vancouver Island University.
- ◆ Accepted students will receive a letter from Admissions outlining fee payment procedures.

## **Start Date and Application Deadline**

This program is typically offered in February at the Nanaimo Campus. For specific start date and application deadline check the Information Sheet for upcoming delivery.

## **Fees**

Tuition fees for the complete Forest Harvesting Equipment Operator Certificate Program are \$11,500 plus Student Society and Activity Fees.

A \$200 non-refundable deposit must be paid one month after receipt of the acceptance letter.

Note: Fees are subject to change.

Students may also be required to purchase textbooks and supplies. A list will be provided at the time of registration.

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# Centre for Continuing Studies

## Financial Assistance

This program is not eligible for Student Loans.

If you have applied for funding ensure that it is in place when you submit your application, so the deposit and final payment can be made on the dates required. If payments are not received by the deadline date, you will lose your seat in the program. Full fees may be paid on the deposit date if you wish.

## Graduation Requirements

Students must successfully complete each course to receive the certificate.

Students are required to attend all scheduled lectures, observations, and examinations. If you do not meet the attendance requirements, and grade requirements, you will not qualify to receive the program certificate.

## For More Information

For more information please visit [www.viu.ca/ccs](http://www.viu.ca/ccs) or call a Vancouver Island University Campus.

*The information contained in this guide is accurate at the time of printing. Vancouver Island University reserves the right to make such changes as necessary, including the cancellation and adjustment of courses and changes in fees.*

*Updated 2008/01/10*



## About the Centre for Continuing Studies

The Centre for Continuing Studies at Vancouver Island University serves the education and training needs of thousands of lifelong learners in our region each year. The Centre seeks to expand learning opportunities for adults and to provide a welcome point of contact for business, industry, and individuals interested in accessing extensive educational resources. The Centre links Vancouver Island University with community groups to develop education and training programs for people of all ages for professional, occupational and personal skill development.

## About Vancouver Island University

Vancouver Island University is a comprehensive university for the central Vancouver Island region. The main campus is located in Nanaimo; regional campuses in Duncan, Powell River and the Parksville/Qualicum area. More than 10,500 full-time and part-time students are enrolled in academic, career, technology, applied, and upgrading programs. In addition, 10,500 part-time learners are enrolled in continuing education programs.

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### Nanaimo Campus

900 Fifth Street  
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Toll Free: 1-866-734-6252  
Fax: (250) 740-6452  
Email: [ccs@viu.ca](mailto:ccs@viu.ca)

### Parksville/Qualicum Centre

Parksville Civic & Technology Centre  
100 Jensen Avenue East, Box 42  
Parksville, BC V9P 2G3  
Tel: (250) 248-2096  
Toll Free: 1-866-734-6252  
Fax: (250) 248-9792  
Email: [pqcampus@viu.ca](mailto:pqcampus@viu.ca)

### Cowichan Campus

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Duncan, BC V9L 6P4  
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### Powell River Campus

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**Visit our Website ■ [www.viu.ca/ccs](http://www.viu.ca/ccs)**

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