

Program Outline 1



Program Name	Introductory Heavy Equipment Operator
Program Number	728

Program Description

STUDENT RECORDS SYSTEM	
Division	21
Full Time/Part Time	F
Group	HE
P & P Motion #	
B of G Motion #	
Date Approved	2000
Date Deactivated	

The Heavy Equipment Operator Program is a five-month program designed to train students to operate Heavy Equipment namely, swing rig backhoes, crawler tractors, rubber tired loaders and motor graders. Students will be trained on two pieces of equipment and be certified to have knowledge and skills for employment at a basic entry level. Employers would be required to provide adequate supervision and direction to assist the graduate in attaining the additional knowledge and experience necessary in achieving Journeyman status.

Program Eligibility

Applicants wishing to apply to this program must:

- Have completed Grade 9 level of oral/written English or have completed ABE English 130 and Math 130
- Submit a copy of a valid Class V licence prior to entry into the program

Students are required to obtain:

- Medical certificate
- Valid Class III driver's medical if enrolled in Introduction to Truck Driving Class III IQ 728-114
- Valid driver's abstract

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Program Outline 2



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- Must be 18 years of age or older
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Applicant Assessment

All applicant assessment is conducted by the Registrar and the Coordinator of Trades and Technology Programs to validate applicant's eligibility. Entrance exams may be required if academic levels are not substantiated.

Program Admission

Applicants will be admitted to this program based on the program eligibility criteria, subject to available space and resources. Applicants will receive a letter of acceptance from the Registrar.

Program Information

Students must bring clothing suitable for outside equipment operation. Students must also possess and wear proper protective footwear and coveralls. Headgear, eye protection (goggles) are provided by the College. All required manuals for the courses are provided by the College. Attendance for all courses is compulsory.

Program Objectives

1. To train students as Heavy Equipment Operators capable of operating the equipment at a basic entry level for employment.
 2. To operate competently and safely the equipment the student elects to study.
 3. To understand and perform required safety checks and maintenance on the equipment.
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Program Outline 3



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4. To perform basic construction procedures associated with the equipment.
 5. To understand the workings of the vehicle's systems.
 6. To understand and demonstrate the required employment criteria.
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Completion Requirements

Students must demonstrate acceptable life skills such as punctuality, attendance attitude and successfully complete the compulsory and optional units in the program.

Students must demonstrate to the satisfaction of instructors that they are safe and capable operators on the pieces of equipment studied.

Document of Recognition

Record of Achievement

President:

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Program Outline 4



Program Name	Introductory Heavy Equipment Operator
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Length:

Core Courses

Yr	Number	Course / Module Name	Credits	Cr Hrs	Semester
	728-005	First Aid	NC	24	
	728-100	Introduction to Heavy Equipment Operator	3	6	
	728-101	Introduction to the Knowledge and the Use of Heavy Equipment	3	12	
	728-102	Introduction to Equipment Systems	3	18	
	728-103	Preventative Maintenance Procedures	3	18	
	728-104	Interpret Construction Survey Specifications	3	6	
	728-105	Air Brakes	NC	12	

Elective Courses

Yr	Number	Course / Module Name	Credits	Cr Hrs	Semester
	728-110	Introduction to Operating a Crawler Tractor	3	175	
	728-111	Introduction to Operating a Backhoe	3	175	
	728-112	Introduction to Operating a Motor Grader	3	175	
	728-113	Introduction to Operating a Front End Loader	3	175	
	728-114	Introduction to Truck Driving Class III	3	175	
	080-15X	Aboriginal Languages (Inuktitut 110, 115, 120, or 130 Depending on Language Assessment)	NC		

Total Credits:

F:Fall

W:Winter

S:Spring

U:Summer

Prepared By:

Date:

President:

Program Outline 5



Program Name	Introductory Heavy Equipment Operator	
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Course Descriptions

Compulsory Courses

728-005 First Aid

The purpose of this course is to train each student to the BASIC RESCUER LEVEL of CPR and to train each student to the Emergency or Standard level of First Aid

728-100 Introduction to Heavy Equipment Operation Training

This course is intended to give the student a basic knowledge of the Earth Moving Industry. Students will learn the expectations of employers, of their employees, as well as money management, human relations, and communications, and the types of equipment that are used on a daily basis.

728-101 Introduction to the Knowledge and Use of Heavy Equipment

It is expected that the student will become extremely safety conscious and recognize the importance of using proper safety precautions and procedures. Students are introduced to the NWT Industrial Safety Regulations, rudimentary safety practices, hand signals, emergency situations and basic First Aid. The importance of safety cannot be overemphasized.

728-102 Introduction to Equipment Systems

This course is designed to give the student an overview of the common systems found in most pieces of heavy equipment. Students will be expected to understand how many of the equipment systems work and their importance to the equipment. Some of the common systems to be covered include engine types and operation, fuel systems, cooling systems, lubricating systems, power train, tracks, and tires.

728-103 Preventative Maintenance Procedures

This course provides the student with the knowledge and capabilities to perform preventative maintenance requirements on heavy equipment. This is an important function of heavy equipment operators to ensure that the equipment is routinely checked and preventative maintenance procedures carried out. The course concentrates on special winter maintenance requirements and basic trouble-shooting.

728-104 Interpret Construction Survey Specifications

This course is designed to provide the student with a general knowledge and understanding of the many aspects of construction specifications. This is an extremely detailed course. Students are introduced to interpreting survey stakes, soil classification, road building stages, assembling and backfilling culverts, soil compaction, weights and composition. Much of the associated training on the equipment will relate directly to this section of the program. During the practical part of the program, students will practice reading construction stakes, building roads and moving different soils to experience what they have been taught.

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Program Outline 6



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728-105 Air Brakes

This course is one of the most important aspects of the program if enrolled in Introduction to Truck Driving Class IIIQ [728-114]. This course deals with all components of the Dual Circuit 121 Air Brake Systems used on today's vehicles.

Optional Topics [any 2]

Students will select two pieces of equipment from the five options presented during the final weeks of the Heavy Equipment Operator Program. Each course is approximately eight weeks long.

728-110 Introduction to Operating a Crawler Tractor

This course is designed to instruct the student in all aspects of the Crawler Tractor and provide ample time to practice operating this piece of equipment in actual work assignments.

728-111 Introduction to Operating a Backhoe

This course is designed to provide the student with the necessary basic skills and information to operate this piece of equipment to entry-level proficiency.

728-112 Introduction to Operating a Motor Grader

This course will provide the student with the knowledge and experience to operate this piece of equipment safely and proficiently as an entry-level employee in the heavy equipment field.

728-113 Introduction to Operating a Front End Loader

This course is designed to provide the student with the necessary basic skills and information to operate this piece of equipment to entry-level proficiency.

728-114 Introduction to Truck Driving Class III

This course will provide the student with the knowledge and experience to safely drive a Class 3 truck. Work experience is based on the skills required of a driver employed at mine sites, construction sites, hamlets, towns and cities.

080-15X Aboriginal Languages

Aboriginal Languages (Inuktitut 110, 115, 120, 125, or 130 depending on language assessment).

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