

**HL 119**  
**Oil & Exploration**  
**2 Credits**

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Original Developer: Ian Kossey

Current Developer: Daniel Jantzen

Reviewer: Robert Collins

Created: 21/11/2008

Revised: 22/05/2020

Approval: 02/06/2020

The Implementation Date for this Outline is 13/08/2018

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## HL 119 Version: 5



## Oil & Exploration

### Calendar Description

This course gives an overview of the process of finding and drilling wells as it affects operations once the well is operational. The course also discusses types of wells, components of the well and the various methods of oil recovery.

### Rationale

This is a required course for the Heavy Oil Power Engineering and the Heavy Oil Operations Technician programs. This course provides the basic knowledge of where the oil comes from and how oil is produced.

### Prerequisites

None

### Co-Requisites

None

### Course Learning Outcomes

Upon successful completion of this course, students will be able to

1. use the different methods of well location.
2. describe basic oil well geology.
3. identify the different types of wells and methods of oil recovery.
4. identify the components of wells.

### Resource Materials

Instructor provides material on D2L or the K drive.

## Conduct of Course

Course topics are covered in lecture form using PowerPoint presentations. On-site visits to applicable industrial locations give realistic application of the course topics. Students are encouraged to ask questions and discuss all topics in class. Assignments, quizzes and exams evaluate the progress and extend of the learning.

Class conduct will be according to the Energy department student manual.

## Evaluation Procedures

Learning is assessed in the following activity areas:

Assignments	10%
Labs	10%
Midterm	30%
Final Exam	<u>50%</u>
<b>Total</b>	<b>100%</b>

A student may review midterm and/or final examination papers; however, these documents must be kept on file in the Heavy Oil Operations Technician Program office.

A penalty is normally applied to late assignment work. A supplemental final examination may be made available to a student who does not achieve an overall course grade of C+. Mutually agreed upon remediation must proceed the re-examination.

Peer tutoring may be available for students requiring learning assistance.

## Grade Equivalents and Course Pass Requirements

*A minimum grade of C+ is required to pass this course.*

Letter	F	C+	B-	B	B+	A-	A	A+
Percent Range	0-64	65-69	70-74	75-79	80-84	85-89	90-94	95-100
Points	0.00	2.30	2.70	3.00	3.30	3.70	4.00	4.0

## Attendance

Attendance is recorded at each session. Students must maintain a 90% hourly attendance record in this course.

## Course Units/Topics

1. Land locations
2. Formations and Zones
3. Exploration
4. Types of Wells
5. Drilling Operations
6. Well logging
7. Well Completion
8. Wellheads
9. CHOPS, Secondary Recovery, Tertiary Recovery
10. Enhanced Oil Recovery
11. Oil Lift



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