

HL 139
Heavy Oil Production
2 Credits

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HL 139 Version: 7



Heavy Oil Production

Calendar Description

This course is an overview of safety principles and environmental responsibility used in the oilfield to minimize hazards to equipment, health and the environment. It introduces students to shiftwork and coping with shiftwork challenges. It also identifies issues that may have adverse effects on normal operations.

Rationale

This is a required course for both the Heavy Oil Power Engineering and the Heavy Oil Operations Technician programs. This course provides basic process and occupational safety knowledge to the student. Dealing with the challenges of shift work is covered.

Prerequisites

HL 129

Co-Requisites

None

Course Learning Outcomes

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

1. identify the jurisdictional authorities for safety and regulatory requirements
2. identify and research safety regulations and regulatory rules for Alberta and Saskatchewan
3. identify the effects of working shiftwork
4. identify factors affecting oil wells and processing facilities
5. identify basic concepts of upstream oilfield economics.
6. describe initiatives to reduce the impact oil production has on the environment.
7. identify types of corrosion and methods of corrosion control.

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 the learning.

Course conduct is according to the Energy department student manual.

Evaluation Procedures

Learning is assessed in the following activity areas:

Lab	10%
Assignment	10%
Midterm Exam	30%
Final Exam	<u>50%</u>
Total	100%

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.

The value of each assignment is set by the instructor prior to the evaluation. In setting the value, the instructor considers length, depth, and complexity of the assignment.

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. Prime Movers
2. Lease Maintenance
3. Cold Weather Operations
4. Occupational Health and Safety
5. Process Safety
6. Shiftwork
7. Environmental Responsibility
8. Regulatory
9. Corrosion Prevention
10. Flaring and Venting
11. Well economics



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