

PTEC 3301

Petroleum Fundamentals



Section 794, Spring 8W2, 2020

Basic Information

Instructor: Ahmed Alzahabi

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Office: Engineering Building 2.100 D

Office Phone: 432.552.3445 (for best response times, please use Canvas and email; due to laboratory duties, I am not always in my office to take calls)

Office Hours: T-W-Th 09:00 – 10:30 or by appointment

This course is a Web Course and is conducted within Canvas at <http://utpb.instructure.com>

NOTE: The due dates and times for the course activities will adhere to the Central Time Zone.

Course Description

Course Catalog Description: PTEC 3301 – Petroleum Fundamentals, 3.0 Credit Hours. An introduction to petroleum industry technology, equipment usage, and operating procedures.

Prerequisites: None

Objectives/Outcomes: Understand the various aspects of the petroleum industry, including exploration, drilling, production, transportation and refining.

Measurable Learning Outcomes:

By the end of this course, you should be able to:

- Explain in general terms how and where petroleum deposits are formed.
- Define the elements that make up a productive and economic reservoir.
- Describe the primary activities and equipment needed to drill and complete a well.
- Distinguish between the various type of produced and marketed fluids.
- List the methods of transportation of petroleum products.
- Explain the process of petroleum production (upstream and downstream).
- Identify the elements of a petroleum production company, whether independent or integrated major.

Materials

Required Materials: Required textbook: PETEX: Petroleum Fundamentals, 5/E, edited by Debby Denehy (2011), ISBN: 0-88698-231-6. The textbook can be purchased from the UTPB bookstore or directly from PETEX: <https://cee.utexas.edu/ce/petex/>

Recommended Materials: Supplemental readings and videos may be added. Links or access information will be posted in Canvas.

Other materials: Broadband Internet connection and a computer with webcam and microphone capable of running Respondus Lockdown Browser for taking exams. Respondus Lockdown Browser is free and can be downloaded using this link:

<http://www.respondus.com/lockdown/download.php?id=841715130>

Important Academic Dates

UTPB Academic Calendar: <https://www.utpb.edu/calendar/index.php>

Course Overview

All activities in the course are required. There are no optional or extra credit assignments

Readings: 15

Videos: 1+

Exams/Quizzes: 3

Assignments: 15

Research Project (paper): 1

Discussion Topics: 6 to 8

Final Exam: 1

Presentations: 0

Grading:

Course Activity	Percentage of Total Grade
Assignments	25
Research Paper	25
Quizzes	30
Final Exam	10
Discussion participation	10
Total	100

Grading Scale:

Grade Range	Letter Grade
90 and above	A
80 to 89	B
70 to 79	C
60 to 69	D
Less than 59	F

The instructor has the right to deviate from the above grade distribution.

Communication, Grading & Feedback: All the course activities will be graded within approximately one week after the set due date. You can check your grades by going to Grades. If there is any discrepancy in the grade, you must contact me immediately via the Canvas Internal Messaging Tool. I will provide individual feedback or a general feedback in the performance of the course activity. Assignments are graded according to the point value allocated in the course assessment section. To grade your papers, I will use the Paper Evaluation Rubric discussed under the grading section in this syllabus.

Homework and exams: Grading is based on the following criteria – completeness or comprehensiveness of answer (including source if necessary on homework), and demonstration of a grasp of the topic by providing explanations and/or examples. Short-answer responses should be grammatically correct and easy to understand. It is very rare that one or two-word answers are acceptable for homework. “Copy/paste” responses do not demonstrate anything other than a mastery of text search. To show a fuller grasp of the material, always try to put the answer in your own words.

Discussion grading criteria are covered in the Discussion Board section below. Please try to stay on topic; personal experiences and opinions are useful only insofar as they directly inform the discussion. As with the homework, avoid use of “copy/paste” from the first website you find. Whether credited or not, non-original material should be no more than 20-25% of your posts or responses.

Individual Paper: The Rubric for the paper assignment awards 75% based on the appropriateness of the topic for the course, quality of sources and quality of the content. There will be a major point deduction for excessive use of quotations to fill the paper by copy/paste/cite; no more than 20% of the paper’s content should be direct quotes or paraphrasing. 25% of the grade is based on grammar, writing quality (including style and tone), and adherence to American Psychological Association (APA) Style guidelines. You may not recycle a paper submitted for a previous course. The paper should be 9 to 11 Times Roman, double-spaced pages (minimum of 4000 words) not including cover pages, figures or reference pages. There should be a minimum of 4 references, preferably from peer-reviewed academic journals, books, industry journals, reputable news sources, or company websites, which you can access through the UTPB Library databases or EBSCO. Wikipedia and blogs are not acceptable references.

Time Management: A student should expect to spend three hours on preparation and learning assignments for every semester credit hour. If a class is a 3-semester credit hour class, it is expected that a student should spend about 9 hours out of class on assignments in addition to 3 hours of in-class time for a total of about 12 hours per week to obtain an "A" in a class. These expectations do not change for online learning. Since this course runs on a compressed schedule (8 weeks), it is important to develop a Time Management Plan to be successful.

Policies

1. Class Communication Policy

Online classes offer a great deal of flexibility; however, the fact that there is not a regular meeting time complicates communication. Please note that this is a fully online class conducted in the Canvas Learning Management System that students can access 24/7 during the term. Although students may work on assignments day or night, instructors are not required to work

24/7 to respond instantly to student questions or problems. I will log in to the class at least once per day on weekdays unless travel or meetings prevent me from doing so. I will usually log in to the class at least one time over the weekend.

- a) All communication must take place in the Canvas Learning Management System via the class General Questions discussion board and the Canvas Internal Messaging tool.
- b) During the term of the course, I will not communicate with students about course issues via UTPB internet email. The main reasons for this policy are that (1) we get dozens of UTPB emails daily and your email can easily be missed in the clutter; and (2) emails sent from non-UTPB email addresses are generally intercepted by a spam filter and this system only sends weekly notices. Most importantly, by keeping all communication within the Learning Management System, they are archived and easy to find if needed.
- c) When you have a personal situation involving illness or the grading of your individual assignment, please send me a message using Canvas Internal Messaging tool. These are private, and I will respond within 24-48 hours depending if it is a weekday or weekend.
- d) If there is a class announcement, it will be in the course Announcement area. You may opt to have those sent to your email account; there is no need to reply to such emails.
- e) If you want to ask any course-related question, please use the General Questions discussion board, and I will reply the next time I log in to the class. If someone has already asked the question, please do not make a "me too" posting as it serves only to clutter up the discussion board. I will respond within 24-48 hours depending if it is a weekday or weekend.
- f) I may interject in the graded discussion forums if I feel it to be necessary. In most cases, I will only be reading and grading the discussion posts. I will not be looking into any group discussion boards unless a problem is brought to my attention.
- g) If you have any questions before or after taking a quiz, please send a message using Canvas Internal Messaging tool.

2. **Discussion Board:** The General Questions discussion board is primarily for discussing course related topics and issues.

Each graded discussion topic is worth 20 points: up to 10 points for the initial posting and up to 5 points for each of the TWO required responses to other students. For each discussion, you must (1) respond directly to the question during the first 2 days of the week, and (2) read the other students' posts and reply to at least two other students' responses. If you agree (or disagree) with a posting, then say why by supporting your statement with concepts from the course material or by bringing in a related example or experience.

You are responsible for reading all of the messages posted in the online discussion. Not reading messages is the equivalent of sleeping in class. Using a person's name when you reply to their message helps to keep all of us oriented, and helps us maintain a clearer sense of both who is speaking and who is being spoken to. As we begin to associate names with tone and ideas, we come to know each other better.

Best practices are:

- a) Read all message postings in online discussion.
 - b) Respond to the question directly
 - c) Reply to minimum of two other student posts.
 - d) Use a person's name in the body of your message when you reply to their message.
 - e) Avoid postings that are limited to 'I agree' or 'great idea', etc.
 - f) Ensure responses to questions are meaningful, reflective.
 - g) Support statements with concepts from course readings; refer to personal experience, examples.
 - h) Follow **Rules of Behavior** (below).
3. **Rules of Behavior:** Discussion areas are public to every student in this class (including your instructor) who will see what you write. Please pay attention to the language you use and adhere to the following guidelines:
- a) Do not post anything too personal.
 - b) Do not use language that is inappropriate for a classroom setting or prejudicial in regard to gender, race, or ethnicity.
 - c) Do not use all caps in the message box unless you are emphasizing (it is considered shouting).
 - d) Be courteous and respectful to other people on the list
 - e) Do not overuse acronyms as you would use in text messaging. Some of the list participants may not be familiar with acronyms.
 - f) Use line breaks and paragraphs in long responses.
 - g) Write your full name at the end of the posting.
 - h) Be careful with sarcasm and subtle humor; one person's joke is another person's insult.
4. **Make-Up/Late Submission Policy:**
Late submissions for assignments will be NOT be allowed after the first 7 days [of the 7-week session] (25% deduction per day for days 1-7, none accepted after day 8). Exams and discussion boards are not accepted after the due date, and no late submissions are permitted for any Week 8 assignments. If the student is unable to abide by the due dates and times, it is her/his responsibility to contact the instructor immediately.
- Due dates and times are set for the campus location in the Central Time Zone of the U.S.
- There will be no makeup examinations except under very exceptional circumstances pre-cleared by the instructor, such as documented medical reasons, emergencies, or University sponsored activities. A copy of the official excused absence letter must be given to instructor for absences due to University sponsored activities as soon as the letter is issued to students. Any missed examination automatically receives a grade of ZERO.
5. **Academic Dishonesty/Plagiarism/Cheating:** The academic community regards academic dishonesty as an extremely serious matter, with serious consequences. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. Any suspicion of academic dishonesty will be reported and investigated. A student who engages in scholastic dishonesty that includes, but is not limited to cheating, plagiarism, and collusion will receive an "F" for the course.

Quizzes must be taken with Respondus Lockdown Browser with webcam. Students must show a

complete 360-degree view of the [desk or work area] to demonstrate clearly that no unauthorized resources are nearby. Quizzes are to be taken with no resources (textbooks, notes, tablets, phones, other computer, people, etc.). The student's eyes should be pointed toward the screen throughout the exam, and the student's face should be clearly visible at all times. Continually looking off the screen or to the side is an indication of using unauthorized resources. It is the student's responsibility to demonstrate clearly that no other resources are used. Any doubt will lead to the student taking another exam before a live human proctor at an instructor-approved testing center at the student's expense.

Obvious use of unauthorized resources (including collaboration) or other forms of academic dishonesty can result in a grade of "F" for the class and the student being reported to the Dean of Students Office for academic dishonesty, which could result in failure in the class and/or suspension or dismissal from the college.

All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. For complete information on UTPB student conduct and discipline procedures, consult the university's handbook at: <http://ss.utpb.edu/dean-of-students/scholastic-dishonesty/>

Academic dishonesty includes, but is not limited to cheating, plagiarism, collusion, falsifying academic records, misrepresenting facts or sources, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student such as, but not limited to, submission of essentially the same written assignment for two courses without the prior permission of the instructor, or the attempt to commit such acts.

Plagiarism includes, but is not limited to the appropriation of, buying, receiving as a gift, or obtaining by any means material that is attributable in whole or in part to another source, including words, ideas, illustrations, structure, computer code, other expression and media, and **presenting that material as one's own academic work being offered for credit.**

6. **Attendance and Class Participation:** Regular and active participation is an essential, unmistakably important aspect of this online course. Students will log on a minimum of three times every seven days. All students are expected to do the work assigned and notify the instructor when emergencies arise.
7. **Tracking:** The learning management systems have a tracking feature. Statistics are collected that quantifies how often and when students are active in the course and provides information if the student has accessed different pages of the course.
8. **Absenteeism:** All the course activities have set dates to be completed and submitted. After the due dates, the activities will not be available for the students. Not logging into an online course is considered absenteeism. Contact the instructor immediately in case of emergency medical situation.
9. **Course Incomplete/Withdrawal/Grade Appeal:**
All students are required to complete the course within the semester they are signed up.

Incomplete grades for the course are rarely given, will only be granted if the student provides a valid, documented excuse for not being able to complete the course on time, and has contacted the instructor prior to the scheduled last class to request an extension. The student and instructor sign a contract that includes the incomplete course activities and the new due dates.

Find information and dates regarding drops and withdrawals at <http://www.utpb.edu/services/academic-affairs/office-of-the-registrar/adds-drops>

For grade appeal process go to <http://www.utpb.edu/campus-life/dean-of-students/grievances>.

10. Accommodation for Students with Disabilities:

Any Students with Disabilities: The University of Texas of the Permian Basin in compliance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act provides “reasonable accommodations” to students with disabilities. Any student with a disability who is requesting an accommodation for this course must provide the instructor with official documentation in the form of a letter from the ADA Officer for Students. Only those students who have officially documented a need for an accommodation will have their request honored.

ADA Officer for Students: Mr. Paul Leverington
Address: Mesa Building 4243/4901 E. University, Odessa, Texas 79762
Voice Telephone: 432-552-4696

Email: ada@utpb.edu

11. **External Tools Privacy and Accessibility Statements:** For the accessibility and privacy statements of external tools used within online and blended UTPB courses, go to https://www.utpb.edu/online/reach/ADA_Privacy.

Computer Skills, Technical & Software Requirements

Students will need to create word processing documents, save files, and submit files. You will need to turn in files in Word (.doc or .docx or .rtf). You may also need to create spreadsheet files in .xls or .xlsx format or presentation files in .ppt or .pptx format. All the course assessment activities will be submitted in Canvas. Keep in mind the following standards/practices for submission of assignments: all course assessment activity files that will be submitted to the instructor should be in MS Office formats.

UTPB provides support for Canvas for PC and Mac operating systems. ChromeBook, Linux, and iPad are not supported. Students can use cloud versions of Word, PowerPoint and other Microsoft products through use of their UTPB Outlook 365 and UTPB email address. For more information refer to Student Services below or visit: <http://www.utpb.edu/services/ird/information-on-computer-accounts-e-mail/office-365>

To obtain software licensing and media for selected Microsoft titles at very low cost through a software agreement visit: <http://www.utpb.edu/services/ird/information-for-students/software-distribution/microsoft-select>.

Computer Technical Requirements: Information at <http://www.utpb.edu/online/reach/technical-requirements>

Online Student Authentication

UTPB requires that each student who registers for an online course is the same student who participates in, completes, and receives credit for the course. UTPB's Distance Education Policy requires faculty members to employ at least two methods of verification to ensure student identities. To access online courses students must login to the UTPB learning management system using their unique personal identifying username and secure password. UTPB's Distance Education Policy requires at least one additional student identification method within the course that has been determined and approved by the faculty or academic program. This course satisfies the second method of student authentication by:

- Proctored exams using an approved photo ID*.
- Presentation of approved photo ID* through a web cam and video recorded proctoring during assessment (Respondus Monitor, Examity)
- Field or clinical experiences using an approved photo ID*.
- Synchronous or asynchronous video activities using an approved photo ID*.
- Other technologies or procedures [ONLINE FACULTY MUST SPECIFY]

*Approved up to date photo identifications are: passports, government issued identification, driver's licenses, military ID from DoD. Dual credit and early college high school students use school district identifications.

Using LockDown Browser & Respondus Monitor for Online Exams

This course requires the use of LockDown Browser and Monitor for online exams. Watch this short video (<http://www.respondus.com/products/lockdown-browser/student-movie.shtml>) to get a basic understanding of LockDown Browser and Monitor.

Download and install LockDown Browser from this link:

<http://www.respondus.com/lockdown/download.php?id=841715130>

To take an online test, open LockDown Browser which opens Canvas and navigate to the exam. (You cannot access the exam with a standard web browser.)

When taking an online exam, follow these guidelines:

- Setup your webcam for exams using Respondus Monitor.
- Ensure you are in a location where you won't be interrupted.
- Turn off all mobile devices, phones, tablets, televisions, radios, etc. and remove them from the area.
- Clear your desk or table of all external materials — books, papers, other computers or devices and be prepared to clearly demonstrate in the pre-exam environmental view that the work area is clear.
- Be ready to present an approved photo ID to the webcam when required.
- Do not wear any hats or dark glasses while taking the exam. Any light should be from behind the camera toward your face, not from behind you into the camera lens.

- No other person may be near you or assisting you in any way (except for those with approved disabilities needing assistance).
- Remain at your desk or workstation for the duration of the test.
- LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted.
- It is the student's responsibility to show compliance with procedures and that no unauthorized resources are used. Failure to do so will result in a minimum penalty of having to take another exam before a live proctor at an instructor-approved testing facility at the student's cost (which could exceed \$100). Obvious violations can result in a grade of "F" for the class and being reported to the Dean of Students office for academic dishonesty.

Preparation for Emergencies

Computer Crash: Not having a working computer or a crashed computer during the semester will NOT be considered as an acceptable reason for not completing course activities at a scheduled time. NOTE: Identify a second computer before the semester begins, that you can use when/if your personal computer crashes.

Complete Loss of Contact: If you lose contact with course connectivity completely (i.e. you cannot contact me via Canvas or email), you need to call instructor, and leave message regarding connectivity loss and contact information.

Lost/Corrupt/Missing Files: You must keep/save a copy of every project/assignment on an external drive, UTPB Outlook 365 OneDrive, or personal computer. In the event of any kind of failure (e.g. virus infection, student's own computer crashes, loss of files in cyberspace, etc), or any other file problems or contradictions, you may be required to resubmit the files.

End-of-Course Evaluation & Instructor Evaluation

Every student is encouraged to complete an end-of-course evaluation/survey provided by UTPB. During the last few weeks of class, you will receive an announcement through email notifying you that the Course/Instructor Survey is available. You may follow the link in the email to complete the survey using the same credentials to access your courses here. When entering the emailed Survey link you will see a list of surveys for you to complete. Another way to find End-of-Course Evaluations is through your my.utpb.edu account > My Surveys & Evaluations are on the first page after you login.

The survey is anonymous and your responses are confidential. Your feedback is critical to us and to your instructor as we strive to improve our offerings, and our support of you, the students.

Student Support Services

SERVICE	CONTACT
ADA Accommodation/Support	Testing Services & Academic Accommodations Department (432) 552-2630 http://www.utpb.edu/academics/undergraduate-success/TSAAD

Advising	UTPB E-Advisor at http://www.utpb.edu/academics/undergraduate-success/academic-advising-center/e-advisor
Bookstore	(432) 552-0220 http://www.bkstr.com/texas-permianbasinstore/home
Email, Outlook 365, my.utpb.edu	Information Resources Service http://www.utpb.edu/services/ird
Financial Aid and Scholarship	(432) 552-2620 http://www.utpb.edu/campus-life/financial-aid
Library	(432) 552-2370 The J. Conrad Dunagan Library Online at http://library.utpb.edu/
Registrar	(432) 552-2635 http://www.utpb.edu/services/academic-affairs/office-of-the-registrar
Student Services	http://www.utpb.edu/campus-life/dean-of-students
Technical Support	Canvas 1-866-437-0867 https://guides.instructure.com/
Tutoring & Learning Resources	If you are taking courses through UTPB the following links provide services: Smarthinking Online Tutoring (provides tutoring services), SmarterMeasure (measures learner readiness for online course). http://www.utpb.edu/online/reach/smarthinking-online-tutoring

Disclaimer & Rights

Information contained in this syllabus was to the best knowledge of the instructor considered correct and complete when distributed for use in the beginning of the semester. However, the instructor reserves the right, acting within the policies and procedures of UTPB, to make changes in the course content or instructional techniques without notice or obligation. The students will be informed about the changes, if any.

Copyright Statement

Many of the materials that are posted within UTPB courses are protected by copyright law. These materials are only for the use of students enrolled in the course and only for the purpose of the course. They may not be further retained or disseminated.

End-of-Course Evaluations

Every student is encouraged to complete an end of course evaluation survey provided by UTPB. During the last two weeks of class, there will be an announcement in Canvas, an email, and a button in your course navigation that will take you to any available surveys.

The survey is anonymous and your responses are confidential. Your feedback is critical to us and to your instructor as we strive to improve our offerings, and our support of you, the students.

Tentative Schedule (subject to change)

Week 1 Topics:	Introduction to course; Petroleum Geology and Exploration
Read:	PETEX textbook Parts 1.1 and 1.2 Web links for additional information on rock types
Activities:	Watch videos: "Life Cycle of an Oil Well" and others Participate in Discussion – Introductions Complete first assignments
Week 2 Topics:	Mineral Rights and Leasing; Drilling
Read:	PETEX textbook Parts 1.3 to 2.2
Activities:	Complete assigned homework Participate in Week 2 Discussion
Week 3 Topics:	Drilling (continued); Production
Read:	PETEX textbook Parts 2.3 to 3.1
Activities:	Complete assigned homework Participate in Week 3 Discussion Complete Quiz 1 during Week 3
WEEK 4 Topics:	Production (continued)
Read:	PETEX textbook Parts 3.2 to 4.1
Activities:	Complete assigned homework Complete Week 4 Discussion
WEEK 5 Topics:	Transportation, refining and processing
Read:	PETEX textbook Parts 4.1 to 4.2

Activities: Complete assigned homework
Participate in Week 5 Discussion

WEEK 6 Topics: Petroleum Economics, EHS (Environment, Health and Safety)

Read: PETEX textbook Parts 4.3 to 5.1
Additional notes

Activities: Complete assigned homework
Participate in Week 6 Discussion
Complete Quiz 2 during Week 6
Submit Individual Paper by last day of Week 6 (April 28)

WEEK 7 Topics:

A EHS (continued); Energy Options and Policy

Read: PETEX textbook Parts 5.2 and 5.3
Lecture notes

Activities: Complete assigned homework
Participate in Week 6 Discussion
Complete Quiz 3 by the end of Week 7 (May 2nd)

WEEK 7 Topics:

B Current Events, Shale Revolution

Read: Posted articles (TBA)
Lecture notes

Activities: Review assigned videos, especially "Life Cycle of an Oil Well"
Participate in *Course Reflection Discussion* by last day of Week 7B
Complete Final Quiz by last class day – May 03