

PETE 310 Course Syllabus - Fall 2016

Instructor: Dr. Berna Hascakir, Texas A&M University - Petroleum Engineering Department

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Office Hours: MW – 15:50-17:10 pm –only available during office hours, otherwise get an appointment through class TAs.

Catalog Description: Thermodynamic behavior of naturally occurring hydrocarbon mixtures; evaluation and correlation of physical properties of petroleum reservoir fluids including laboratory and empirical methods. Class will meet MWF 3:00-3:50 pm in RICH 101.

LABORATORY

Section	Lab Section Days	Lab Section Times	Classroom for Virtual Labs	Classroom for Wet Labs
PETE-310-505	Tuesdays	02:20 pm – 05:10 pm	RICH 319	RICH 209
PETE-310-504	Thursdays	11:10 am – 02:00 am	RICH 319	RICH 209
PETE-310-506	Thursdays	02:20 pm – 05:10 pm	RICH 319	RICH 209

Lab Instructors: Taniya Kar (atat7142710@tamu.edu), Abhishek Punase (be-3026701@tamu.edu), and Matthew Morte (matthewmorte@tamu.edu)

Graders: Taniya Kar (atat7142710@tamu.edu), Abhishek Punase (be-3026701@tamu.edu), Matthew Morte (matthewmorte@tamu.edu), Norasyikin Ismail (iekyn89@tamu.edu), Murtdha Alshaikh (murtdha.shaikh@tamu.edu)

Office: RICH 602/611

Office Hours : Taniya Kar, W 9:00 am-12:00 pm; Abhishek Punase, Tue-W 11:00 am-12:30 pm ; Matthew Morte, W 11 :00 am-2:00 pm

Instructional Objectives

Topics Covered:

1. Introduction, Organic Chemistry: Alkanes, Alkenes, Alkynes, Cycloaliphatic Aromatics, Non- Hydrocarbon components.
2. Properties of Pure Substances. Two, Three, and Multi-component Mixtures. Phase Diagrams.
3. Virtual Lab- Orientation, Safety, Determination of Vapor Pressure.
4. Classification and Identification of Reservoirs by Fluid Type.
5. Ideal and Real Gases.
6. Reservoir Engineering Properties of Gases: Gas Formation Volume Factor. Viscosity (B_g & μ_g). Wet Gas Gravity and Isothermal Compressibility.
7. Definition and Evaluation of Black Oil Properties from Field Data.
8. Reservoir Fluid Study: Report, lab procedure, and determination of fluid properties from reservoir fluid studies.
9. Field Trip Commercial Fluid Laboratory.
10. Evaluation of Black Oil Properties from Correlations: Bubble point pressure, solution gas oil ratio (p_b & R_s), oil density (ρ_o), compressibility, viscosity (c_o & μ_o), and formation and volume factor (B_o).
11. Virtual Lab- Evaluation of gas z-factor and Analysis of Leaks. Bubble Point of Live Oil Sample and Phase Envelopes.
12. Surface Separation Calculations and Equilibrium Ratio Correlations.
13. Evaluation of oilfield brine properties: Salinity, Bubble Point, formation volume factor, density and solution gas water ratio (B_w , ρ_w , R_{sw}). Water isothermal compressibility, viscosity (c_w , μ_w).
14. Lab- Determination of Viscosity and Surface Tension of Oil, Gas, & Water Samples.
15. Conditions for Hydrate Formation and Hydrate Inhibition Procedures.
16. Cubic Equations of State: Solution of Cubic Equations. Calculations with Equations of State.
17. Virtual Lab- Differential Vaporization and Separator Tests of Live Oil Sample.
18. Hydrate formation and inhibition techniques.

Contributions to Meeting the Curriculum Requirements of Criterion:

Math and Science	None
Petroleum Engineering	This course provides students with a fundamental background on the determination and evaluation of fluid properties. It also provides mathematical tools for the analysis and interpretation of data. Incorporates design of PVT-related processes.
General Education	None

Course Learning Outcomes and Relationship to Program Outcomes:

Course Learning Outcome: At the end of the course, students will be able to...	Program Outcomes
Describe how physical properties of hydrocarbon components are affected by molecular structure, size, pressure, and temperature. Explain the physical meaning and evaluate the impact of fluid properties in reservoir engineering and production problems.	11
Compute formation volume factors, viscosities, solution gas-oil ratio, densities of oil, water and gas, Z-factor (single and two-phase), and interfacial tensions.	1
Calculate gas, oil, and oilfield brine properties (z-factor, density, viscosities) using various correlations with different independent variables: gas or oil composition, API gravity, gas gravity, salinity, bubble point pressure, and temperature.	5
Calculate the specific gravity of a wet gas mixture by recombination using production data and: all surface compositions, or separator composition, or properties of the separator gas.	5
Describe the laboratory procedures required for a Reservoir Fluid Study and calculate reservoir fluid properties (formation volume factors, solution gas oil ratios) from the PVT data obtained from a virtual PVT lab simulation.	1,3,5
Determine and analyze values of oil and gas formation volume factors, saturation pressures, compressibilities, and solution gas oil ratios, given raw PVT data from a reservoir fluid study and pressure-production field production history of oil and gas.	5
Design optimal separator conditions from a simulated virtual PVT laboratory test by maximizing the API gravity of the oil.	2,3,5
Determine and analyze the dependence of oil viscosity with temperature and oil gravity, by conducting laboratory experiments.	2
Determine and analyze the dependence of interfacial tension with temperature and type of mixtures: oil, water and surfactant solution; by conducting laboratory experiments.	2
Calculate phase boundaries (bubble point or dew points), and two-phase phase equilibrium separations given overall mixture composition, pressure (or temperature), and equilibrium ratios (k-values) from: ideal solution models, from correlations or from table lookup.	1,5
Evaluate and Design a hydrate inhibition scheme using the virtual PVT lab by assessing the economic a technical impact of inhibitors and inhibitor concentrations upon the temperatures and pressures at which hydrate formation occurs.	2,11

Related Program Outcomes:

No.	PETE graduates must have...
1	An ability to apply knowledge of mathematics, science, and engineering.
2	An ability to design and conduct experiments, as well as to analyze and interpret data.
3	An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
5	An ability to identify, formulate, and solve engineering problems.
11	An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

FALL 2016 COURSE SCHEDULE

Week#	Lecture#	Date	Day	Chapter: Reading	Topics
WEEK 1	0	Aug 29	M	Introduction	Introduction-Reservoir Fluids
	1	Aug 31	W	1:-pp 1-12	Introduction-Lab Safety
	2	Sep 2	F	1: pp 12-22	Organic Chemistry, Hydrocarbons, Alkanes, Alkenes
WEEK 2	3	Sep 5	M	1: pp 22-28	Alkynes, Cyclic Aliphatic HCs
	4	Sep 7	W	1: pp 28-42	Aromatics, Resins, Asphaltenes
	5	Sep 9	F	2: pp 46-61	Non HCs- Kerogen
WEEK 3	6	Sep 12	M	2: pp 61-73	Phase Behavior, Pure Substance
	7	Sep 14	W	2: pp 61-73	Phase Behavior, Two components
	8	Sep 16	F	2: pp 73-84	Phase Behavior, Three & Multi components
WEEK 4	9	Sep 19	M	3: pp 90-104	Equation of State-Ideal Gases
	10	Sep 21	W	3: pp 104-122	Equation of State-Real Gases (SPE 26668)
	11	Sep 23	F	4: pp 129-144	Other EOS
WEEK 5	13	Sep 26	M	5: pp 147-158	The Five Reservoir Fluids
	14	Sep 28	W	5: pp 147-158	The Five Reservoir Fluids
	R	Sep 30	F	1, 2, 3: 1-104	Review for Midterm
WEEK 6	Exam 1	Oct 5	M	Exam 1 (15%)	Chapters 1, 2, 3, 4, 5- Exam is scheduled at 07:15-9:15 pm in RICH 106
	15	Oct 7	F	6: pp 165-178	Viscosity & Pseudoreduced Compressibility
WEEK 7	16	Oct 10	M	7: pp 205- 217	Properties of Wet Gases
	17	Oct 12	W	8: pp 224-241	Properties of Black Oils-Definitions
	18	Oct 14	F	9: pp 247-253	Properties of Black Oils- Field Data
WEEK 8	19	Oct 17	M	10: pp 257-270	Properties of Black Oil- Reservoir Fluid Studies
	20	Oct 19	W	10: pp 271-280	Properties of Black Oil- Flash Vaporization
	21	Oct 21	F	10: pp 280-292	Properties of Black Oil- Oil Viscosity
WEEK 9	22	Oct 24	M	11: pp 296-301	Properties of Black Oils-Correlations
	23	Oct 26	W	11: pp 317-326	Properties of Black Oils-Density of a liquid
	24	Oct 28	F	11: pp 326-338	Properties of Black Oils-Form. Vol. Fac. of Oil
WEEK 10	R	Oct 31	M	6-11: pp 104-280	Review for Midterm Exam
	Exam2	Nov 2	W	Exam2 (15%)	Chapters 6-7-8-9-10-11 Exam is scheduled at 07:15-9:15 pm in RICH 106
	25	Nov 4	F	11: pp 301-317	Properties of Black Oils-Isothermal Compressibility
WEEK 11	26	Nov 7	M	12: pp 347-354	Gas-Liquid Equilibria-Ideal Solutions
	27	Nov 9	W	12: pp 354-368	Gas-Liquid Equilibria-Non ideal Solutions
	28	Nov 11	F	13: pp 374-386	Surface Separation
WEEK 12	29	Nov 14	M	14: pp 395-411	Equilibrium-Ratio Correlations
	30	Nov 16	W	15: pp 414-424	Gas-Liquid Equilibria Calculation with EoS
	31	Nov 18	F	16: pp 438-451	Gas-Liquid Equilibria Cal. for mixtures
WEEK 13	32	Nov 21	M	16: pp 451-467	Properties of Oil Field Waters
		Nov 23	W	No class	Reading Day
		Nov 25	F	No class	Thanks Giving
WEEK 14	33	Nov 28	M	16: pp 451-467	Properties of Oil Field Waters
	34	Nov 30	W	17: pp 474-487	Gas Hydrates-The coefficient of isothermal compressibility of water
	35	Dec 2	F	17: pp 474-487	Gas Hydrates-The coefficient of isothermal compressibility of water
WEEK 15	R	Dec 5	M	Book + Lab	Review for Final
	Exam3	Dec 7	W	Exam3 (10%)	Chapters 11-12-13-14 -15-16 Exam is scheduled at 07:15-9:15 pm in RICH 106
		Dec 9	Thu	No class	Reading Day- All Chapters Course Review
	Final	Dec 13		Final 20%	Book & Lab TBD @ 10:30 am – 12:30 pm RICH 101

* Scheduled program and the exam dates may change.

LABORATORY EXPERIMENTS SCHEDULE- RICH 319 (Virtual Labs) - RICH 209 (Wet Labs)

Sec 504 11:10 am- 02:00 pm (on Tuesdays)

Sec 505 and Sec 506 02:20 pm -05:10 pm (on Tuesdays and Thursdays)

Lab#	Week #	Date	Day	Time	Section	Topics	
LAB 1	1	30 Aug	Tue	02:20 pm – 05:10 pm	505	Introduction, Orientation –Safety	
	1	1 Sep	Thu	11:10 am – 02:00 am	504		
	1	1 Sep	Thu	02:20 pm – 05:10 pm	506		
LAB 2	2	6 Sep	Tue	02:20 pm – 05:10 pm	505	Virtual Lab- Vapor Pressure	
	3	8 Sep	Thu	11:10 am – 02:00 am	504		
	3	8 Sep	Thu	02:20 pm – 05:10 pm	506		
LAB 3	3	13 Sep	Tue	02:20 pm – 05:10 pm	505	Virtual Lab- Gas compressibility factor	
	4	15 Sep	Thu	11:10 am – 02:00 am	504		
	4	15 Sep	Thu	02:20 pm – 05:10 pm	506		
LAB 4	4	20 Sep	Tue	02:20 pm – 05:10 pm	505	Virtual Lab- Determination of Phase Boundaries	
	5	22 Sep	Thu	11:10 am – 02:00 am	504		
	5	22 Sep	Thu	02:20 pm – 05:10 pm	506		
LAB 5	5	27 Sep	Tue	02:20 pm – 05:10 pm	505	Virtual Lab- Reservoir Fluid Studies	
	6	29 Sep	Thu	11:10 am – 02:00 am	504		
	6	29 Sep	Thu	02:20 pm – 05:10 pm	506		
LAB 6	6	4 Oct	Tue	02:20 pm – 05:10 pm	505-1	Wet Lab- Viscosity of Oil Samples ^Y	
	7	6 Oct	Thu	11:10 am – 02:00 am	504-1		
	7	6 Oct	Thu	02:20 pm – 05:10 pm	506-1		
LAB 6	7	11 Oct	Tue	02:20 pm – 05:10 pm	505-2		
	8	13 Oct	Thu	11:10 am – 02:00 am	504-2		
	8	13 Oct	Thu	02:20 pm – 05:10 pm	506-2		
LAB 7	8	18 Oct	Tue	02:20 pm – 05:10 pm	505		Virtual Lab- Surface Tension
	9	20 Oct	Thu	11:10 am – 02:00 am	504		
	9	20 Oct	Thu	02:20 pm – 05:10 pm	506		
LAB 8	9	25 Oct	Tue	02:20 pm – 05:10 pm	505-1	Wet Lab- Compositional Testing ^Y	
	10	27 Oct	Thu	11:10 am – 02:00 am	504-1		
	10	27 Oct	Thu	02:20 pm – 05:10 pm	506-1		
LAB 8	10	1 Nov	Tue	02:20 pm – 05:10 pm	505-2		
	11	3 Nov	Thu	11:10 am – 02:00 am	504-2		
	11	3 Nov	Thu	02:20 pm – 05:10 pm	506-2		
LAB 9	11	8 Nov	Tue	02:20 pm – 05:10 pm	505	Virtual Lab- Gas Hydrates	
	12	10 Nov	Thu	11:10 am – 02:00 am	504		
	12	10 Nov	Thu	02:20 pm – 05:10 pm	506		
Review	12	15 Nov	Tue	02:20 pm – 05:10 pm	505	LAB EXAM (exam date will be announced in the lab sessions)	
	13	17 Nov	Thu	11:10 am – 02:00 am	504		
	14	17 Nov	Thu	02:20 pm – 05:10 pm	506		

* Scheduled program may change, sections may be combined. ^Y Wetlabs can hold maximum 15 students at one time due to safety reasons

COURSE POLICIES

Prerequisites: PETE 311; CHEM 107; CVEN 305; MEEN 315; MATH 308

Required Textbook: The Properties of Petroleum Fluids McCain, W. D., Penn Well Publishing Co., Tulsa

Communication: All requests from students **must be sent** via e-mail. E-mails must be sent to class TAs and CCed to the instructor via e-mail. Class instructor may not be available during some office hours due to business related travels. For those days, students can communicate with the instructor via e-mail. There will be **no negotiation on students' grades. Students are allowed to discuss their grades on each assignment within only one week after grades are posted on e-campus.** This discussion can only be made with class TAs and can only be carried to the class instructor by the class TAs. Students cannot request to review of their exam papers or any other assignments after one week past their grade announcement. Instructor is the only authority to decide on students overall performances. Decision made or claimed

to be made by class TAs on students' performances or grades are not accepted. Undocumented or documented communications on grade decision with class TAs will not be accepted as evidences for any circumstances.

Attendance: Texas A&M views class attendance as an individual student responsibility (<http://student-rules.tamu.edu/rule07>). Attendance is essential to complete the course successfully. Material presented in lecture and class discussion may expand upon points only briefly considered in the required text. Moreover, there will be pop quizzes during class hours, therefore, students are expected to attend class, to bring textbook, notes, homework problems, and calculator all time. There will be around 40 lectures during the semester. If a student will not miss any of all lectures, then, the student will earn 2 points and additional 3 extra points. Excused absences will be count as absence only for this extra 3 points. In other words, if a student has an excused absence that student will not be eligible to earn extra 3 points, however, will still make 2 points from attendance. To earn all 3 extra points, students have to attend both regular classes and lab sessions.

Active Attendance: Apart from physical attendance, students have to contribute class actively by (1) asking technical questions during class, (2) answering technical questions during class, and (3) do all class activities and earn from all class activities an A. The contribution of active attendance to overall grade is 3 points. The class instructor is the only authority who will judge the students' performances and decide on their active attendance points.

Excused Absences: Rules concerning excused absences may be found at <http://student-rules.tamu.edu/rule07>. Except for absences due to religious obligations, the student must notify her or his instructor in writing (acknowledged e-mail message is acceptable) prior to the date of absence if such notification is feasible. In cases where advance notification is not feasible (e.g. accident, or emergency) the student must provide notification by the end of the second working day after the absence. This notification should include an explanation of why notice could not be sent prior to the class. If the absence is excused, the instructor must either provide the student with an opportunity to make up any quiz, exam or other graded activities or provide a satisfactory alternative to be completed within 30 calendar days from the last day of the absence.

Excused Absences for Religious Holy Days: Texas House Bill (effective 9/1/03) states "An institution of higher education shall excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable amount of time after the absence."

Makeup Policy: There will be no makeup exams or pop quizzes for any kind of absences. For the excused absences only, the average of the exams and/or pop quizzes will be taken by excluding the pop quizzes/midterm you miss due to an acceptable excuse which is determined by the university.

Exams: There will be five exams during the semester, four during class (3 midterms and 1 laboratory exam) and one during the final exam period. Each midterm exam will cover approximately three to four weeks of material presented in the class. An opportunity will be provided only for the students who make outstanding performance in one exam with a grade A (Excellent) and those student may repeat the previous exams to increase their grades. Only Midterm Exam 1 can be repeated, Midterm Exam 2, Midterm Exam 3, Lab Exam, and Final Exam cannot be repeated due to time constrain. For this case, the newly taken exam grade will be replaced with the old grade. If students perform worse in the repeating exam, students' old grade still will be replaced with the new one. Students, who do not get an A from an exam, may still repeat the exam, however, the repeated exam grade will be taken into account only if the students can get an A from the repeated exam. Otherwise, the lowest grade will be the actual grade for that student for the repeated exam. See the example table below

Table Example cases for grade calculations with repeated exams

Example Cases	Midterm Grades			Repeated Midterm Grades		Official Midterm Grades	
	Exam 1	Exam 2	Exam 3	Exam 1	Exam 2	Exam 1	Exam 2
Student A	60	90	80	70	None	70	90
Student B	60	90	80	50	None	50	90
Student C	60	80	80	90*	None	90	80
Student D	60	80	80	80*	None	60	80

*Conditional repeat, since if the Student does not have an A from Exam 2, the student can still repeat the Exam 1. For this case, student has to have an A from repeated Exam 1, otherwise lowest grade between Exam1 and Repeated Exam 1 will be the official Exam 1 grade.

Students will be informed on their performances (where they stand) after each exam with a grade range. For instance, by the end of Exam 1, their performance will be calculated by including the contribution of every assignment till that point. By the time, Exam 2 grades are posted, students performances will be calculated by including the contribution of every assignment till that point. By the end of the semester (**December 7, 2016**), students will be informed last time on their stand by excluding the contribution of Exam 3 and not graded other assignments (homework, pop quiz, etc.), since Exam 3 is on the last day of the semester.

Students will also have a laboratory exam by the end of the semester. This exam will be individual effort.

Final exam will be an optional choice for every student. Students who decide to take or to not take the final exam have to inform TA on their intention on December 7, 2016 latest after Exam 3, otherwise, their final grade will be zero. After official decision on “to take or not to take final exam” is submitted to the class TAs, it cannot be changed. The overall grades of the students who select to not take final will be calculated on the based on student’s performance throughout the semester (midterm exams and/or in class activities and/or homework, and/or lab performances and the observation of the instructor on that student). Students will not know their Exam 3 grade and their ungraded other assignments. Hence, students will take a risk by selecting not to take final exam, since neither [class TAs+class instructor] nor the students will know the Exam 3 grade by the time Students will make their minds on taking or not taking the Final exam. Therefore, by making a decision to not take the Final Exam, students will accept the uncertain grades from Exam 3 and other ungraded assignment. For disable students, we can accommodate their exams in Richardson Building. This option gives them opportunity to be in touch with the instructor during the exam and the instructor recommends them to take this option.

Extra Credits: There will be two opportunities to earn extra credit during the semester; attending all classes will bring extra 3 points and instructor observation on students’ behavior (see classroom behavior; do not sleep and talk in the class), progress (increasing grades in the exams and class activities), listening the class and taking notes etc. will bring extra 2 points. Distribution of these 2 extra points will be based on instructor’s opinion, students cannot question instructor opinion on this 2 point extra. There are no make-ups or substitutions for extra-credit opportunities and there will be no more extra points.

Assignments: Late assignments will be given a grade of zero.

1. **Homework and Pop Quizzes:** There will be homework assignments once in a week or two weeks. Students are responsible to answer all homework problems, however, homework will not be returned for grading. Instead, every week or once in two weeks, there will be pop quizzes and pop quiz questions will be from the homework problems. Students have to be prepared for possible pop-quizzes and will not be informed prior to pop quizzes. Pop quizzes are the group effort and closed book. For each quiz, randomly selected 8 to 10 students will form groups and they will work in groups and solve the questions together, every week the group members will be different and randomly selected. If a student is absent, then, the grade of that student will be zero unless student does not have an excused absent and her/his absence will not affect the other group members’ grade. For disable students, three options are provided for pop quizzes; 1. Taking pop quizzes with the class at allocated time which is given for the entire class; 2. Taking at home but this option will require you to solve 3 to 5 times more questions than the entire class is responsible; 3. Taking three pop quizzes on known dates throughout entire semester these quizzes will cover more chapters than for the other students, extra-time will be provided as determined by the TAMU Disability Office. Disable students need to confirm their choice of pop quiz option by the end of the second week of the semester via e-mail (9th of September 2016).

2. **In Class Activities:** There will be several in-class-activities throughout the semester. Students are responsible to work on class activities on the paper distributed in the class, solutions on a calculator or laptop/iPad etc. are not accepted. Due to high volume of enrolment, e-mail submission may not be convenient and sent to TA after lecture. Hence, we will not accept submission via e-mail and any late submission for any reason will be graded zero. Hence, we recommend students to take notes on distributed handouts. Students may need to submit the class activities which will be provided in some classes as additional pop quizzes, this will be announced in the class randomly by the class instructor or TAs.

3. **Laboratory Reports:** There will laboratory report assigned at the end of each laboratory sessions. Students are required to turn in eight laboratory reports, one week after the completion of the laboratory session. Each Laboratory session will start with attendance. By the end of the semester, students will have a laboratory exam, students will be responsible from all nine experiments in this exam.

Grading Policy:

Your grade in this class is earned, not awarded. Instructor is the only authority to decide on students overall performances. Unofficial discussions with class TAs on students’ performances or overall grades are not accepted and grades would not be changed based on only TAs observations. This class is over 105, therefore, I will NOT consider rounding up your overall grade. Throughout the semester, after each midterm exam, you will be informed by your average grade. After the announcement of the grade of each assignment or exam, you will have only one week to discuss your grades with class TAs and make changes on your grades, after one week, you will not allowed to discuss anything on your earned grades. All discussions will be done through TAs, and I will be informed through TAs, not by students on your grade changes.

Your grading will be calculated according to the table given below. Letter grades will be assigned to the following guideline: A=90-100 (Excellent), B= 80-89 (Good), C=70-79 (Satisfactory), D=60-69 (Passing), F=59 and below (Failing); I=Incomplete.

Assignment	Details	% of Grade
1. HW	There is no due date for the HW. However, the pop quiz questions will all be from the weekly assigned homework questions	0
2. Pop Quizzes (50 minutes)		10
3. Attendance Quiz	Physically being in the class during class hours + Lab Attendance (excused absences will be tolerated and students will not lose any points from attendance)	1+1
4. Actively attending the class	Asking and answering questions, doing in-class activities	3
5. Labs	60% Lab Exam - Individual Work (By the end of the semester-only one exam)	15
	40% Lab Report – Team Work	10
6. Exam 1	Chapters 1, 2, 3, 4, 5	15
7. Exam 2	Chapters 6 -7-8-9-10-11	15
8. Exam 3	Chapters 11-12-13-14-15-16	10
9. Final Exam Comprehensive	Book & Lab	20
TOTAL		100
10. Extras	100% Attendance (excused absences will not be accepted for this extra, if students miss a class due to even for an excused absent, student will not earn these 3 extra points)	3
11. Additional Extras	Based on Instructor observation on students' performance/progress/behavior (instructor may or may not provide these extras and instructor's judgement cannot be discussed)	2
TOTAL with EXTRAS		105

Student Conduct: Academic Integrity Statement and Policy, Aggie Code of Honor “An Aggie does not lie, cheat, or steal or tolerate those who do.” Upon accepting admission to Texas A&M University, a student immediately accepts a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System. For more information: <http://www.tamu.edu/aggiehonor>. Each work that you turn in for this class MUST include your signature and the following statement. “On my honor, as an Aggie, I have neither given nor received unauthorized aid on this academic work.”

Classroom Behavior: Texas A&M University supports the principle of freedom of expression for both instructors and students. The university respects the rights of the instructors to teach and the students to learn. Maintenance of these rights requires classroom conditions that do not impede their exercise. Classroom behavior that seriously interferes with either (1) instructor’s ability to conduct the class or (2) the ability of other students to profit from the instructional program will not be tolerated. An individual engaging in disruptive classroom behavior may be subject to disciplinary action. For additional information please visit <http://student-rules.tamu.edu/rule21>.

If a student sleeps in the class or distracts the other students learning during class hours by making noise or involving other distractive actions, that student cannot earn any extra credits from PETE 310. If a student distracts other students learning by making noise or involving other distractive actions during class hours, that student will be asked to leave the classroom immediately.

ADA Policy Statement: (Texas A&M University Policy Statement) Americans with Disabilities Act (ADA) Policy Statement
The following ADA Policy Statement (part of the Policy on Individual Disabling Conditions) was submitted to the UCC by the Department of Student Life. The policy Statement was forwarded to the Faculty Senate for information.
The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit <http://disability.tamu.edu>.

The exams for the disable students will be conducted at Richardson Building in a separate classroom provided for the student. These students will be recorded throughout the exam.

Coursework Copyright Statement: (Texas A&M University Policy Statement)
The handouts used in this course are copyrighted. By "handouts," this means all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy them, unless you are expressly granted permission.

If you have any questions about plagiarism and/or copying, please consult the latest issue of the *Texas A&M University Student Rules*, under the section “Scholastic Dishonesty”.

Prepared by: Berna Hascakir, August, 26, 2016