Instructor:
Instructor: Dr. Bryan Maggard Office: RICH 501U
Lecture: TR 8:00-9:50 a.m. RICH 302 (see schedule)
Office Hours: T 10:00-11:00 a.m. (and by appointment)
Phone: (979) 845-0592
e-mail: maggard@pe.tamu.edu

Texts:
1. Lecture notes and class handouts [on web site]
2. PETE 603 notes, chapters 1-8 [on web site]
3. Chapter 11, SPE Textbook 5, Gas Reservoir Engineering [on web site]

Supplemental Texts (optional):
1. SPE Textbook 7, Basic Applied Reservoir Simulation
2. SPE Monograph 13, Reservoir Simulation

Basis for Course Grade:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Homework, and Projects</td>
<td>20 %</td>
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<tr>
<td>Exam 1</td>
<td>25 %</td>
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<tr>
<td>Exam 2</td>
<td>25 %</td>
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<tr>
<td>Exam 3</td>
<td>25 %</td>
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<tr>
<td>Class Participation and Pop Quizzes</td>
<td>5 %</td>
</tr>
<tr>
<td><strong>total</strong></td>
<td><strong>100 %</strong></td>
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Grade Cutoffs: (Percentages)
A: < 90  B: 89.99 to 80  C: 79.99 to 70  D: 69.99 to 60  F: < 59.99

Policies and Procedures:
1. Students are expected to attend class **every session**.
2. Students are expected to take notes
3. Policy on Grading
   a. It shall be the general policy for this course that homework, quizzes, and exams shall be graded on the basis of answers only — partial credit, if given, is given solely at the discretion of the instructor.
   b. All work requiring calculations shall be properly and completely documented for any credit.
   c. All grading shall be done by the instructor, or under his direction and supervision, and the decision of the instructor is final.
4. Policy on Regrading
   a. Only in very rare cases will exams be considered for regrading; e.g., when the total number of points deducted is not consistent with the assigned grade. Partial credit (if any) is **not** subject to appeal.
   b. Work which, while possibly correct, but cannot be followed, will be considered incorrect — and will not be considered for a grade change.
   c. Grades assigned to homework problems will not be considered for regrading.
   d. If regrading is necessary, the student is to submit a letter to the instructor explaining the situation that requires consideration for regrading, the material to be regraded must be attached to this letter. The letter and attached material must be received within **one week** from the date returned by the instructor.
5. The grade for a **late assignment** is zero. Homework will be considered late if it is not turned in at the **start of class** on the due date. If a student comes to class after homework has been turned in and after class has begun, the student's homework will be considered late and given a grade of zero. **Late or not, all assignments must be turned in.** A course grade of **Incomplete** will be given if any assignment is missing, and this grade will be changed only after all required work has been submitted.
6. Each student should review the University Regulations concerning attendance, grades, and scholastic dishonesty. In particular, anyone caught cheating on an examination or collaborating on an assignment where collaboration is not specifically allowed will be removed from the class roster and given an F (failure grade) in the course
Course Description

This course includes basic equations, derivations and underlying principles used in developing reservoir simulators.

Prerequisites by Topic

- Differential and integral calculus.
- Ordinary and partial differential equations.
- Fluid dynamics and heat transfer.
- Reservoir fluid properties.
- Reservoir petrophysics.