

CLASS MEETING SCHEDULE:

MW 5:30 – 6:45PM in LA5-151.

INSTRUCTOR:

Tangan Gao

Office: FO3-210. Phone: 562-985-4725.

E-mail: tgao@csulb.edu (preferable way to reach me).

Web address: <http://www.csulb.edu/~tgao>.

OFFICE HOURS:

MW 10AM-11AM; MW 6:50PM-7:30PM, and by appointment.

TEXTBOOK:

An Introduction to Numerical Analysis, 2nd Ed, by K.E. Atkinson.

Bring your textbook to every class meeting.

COURSE GOALS AND OBJECTIVES:

Advanced numerical methods. Introduction to error analysis, convergence, and stability of numerical algorithms. Topics may include solution of ordinary differential equations, partial differential equations, systems of linear and nonlinear equations, and optimization theory.

HOMEWORK:

Homework questions will be regularly assigned and the homework assignments will be worth 200 points in total.

No late homework will be accepted.

You are expected to know how to solve all these questions. Solving these questions is an effective way to prepare yourself for exams. It is extremely important that you try to solve the questions yourself first before getting help.

Quizzes:

There will be a quiz every Monday worth 10 points each.

Lowest two quiz scores will be dropped. *No makeup quizzes will be given.*

TESTS:

There will be two tests worth 100 points each and a comprehensive final exam worth 200 points. The final will be held from 5PM to 7PM on Wednesday, 12/16.

Only one makeup test will be given if you have a valid excuse such as illness or accident. It is your responsibility to promptly contact the instructor and provide the necessary documentation.

You may use a calculator (<\$100) during exams, but, it is not necessary. All exams will be based on the material discussed in class and your homework.

GRADING SCALE:

90 – 100% = A, 80 – 89% = B, 70 – 80% = C, 60 – 70% = D, 0 – 59% = F.

Your course grade will be based on a total of about 700 points: 200 from the hour-tests, 200 from the final, 100 from the quizzes, and about 200 from the homework. **Your scores will not be curved!**

CLASS ATTENDANCE:

Class attendance will be taken at the beginning of each class meeting. Five points will be deducted from your total score for each missed class without a valid excuse.

Any changes in this syllabus or in the schedules of tests, quizzes, etc., will be announced during class meetings. Students who miss a class should copy classmates' notes for that meeting.

OTHER UNIVERSITY/COLLEGE POLICIES:

Withdrawals from this course will only be allowed in accordance with University and College policies. All deadlines are observed.

It is the student's responsibility to notify the instructor in advance of the need for accommodation of a university verified disability.

Students are encouraged to work in small groups on course material and homework. For tests and quizzes, the code of the California Administrative Code, Title 5, Section 41301 is applied.

Any office hour may be canceled due to illness or necessary appointments, and students should therefore not depend upon a faculty member being in his/her office for a particular office hour. Students thus should secure any necessary signatures or other such requirements well in advance of any deadline.

SOME SUGGESTIONS FOR YOUR STUDY:

First, you must recognize there is a difference between understanding something and knowing how to do it. For example, if you play basketball, you may understand the job is to score a basket, but you may not have the *skill* to get the ball through the hoop. In math, you may understand a question, but you may not have the *algebraic skill* to do the question. In basketball, the only way to get the shooting skill is to shoot lots of baskets; in math, the only way to get the algebraic skill is to do lots of questions. If you can't do a question at first, look back at the text, notes, etc, find out how and then repeat it until you can do it completely without help.

- Attend every class meeting. Be active in class.
- After each class meeting, read class notes or textbook, and do the corresponding homework. Study together with a couple of classmates or friends if possible.
- Understand (not simply memorize) the concepts and methods. When you know what are really going on behind them, you will easily remember them.
- Every weekend, summarize what you learn during the week, what you understand and what you don't understand.
- Problems can be easily solved when they are still small. Get help as soon as possible.
- Remember two words "WORK HARD". Studying math is not an easy job.

It gets a little easier the more you do it.