

MSE 301 Course Syllabus

A. Course Details

MSE 301 Applied Statistics and Numerical Methods for Materials Scientists & Engineers

Meeting Place: Ferris 511

Meeting Time: Monday, Wednesday & Friday at 9:10-10:00

Instructor: Prof. David Keffer, room 505B Ferris Hall, dkeffer@utk.edu

Teaching Assistant: Kamyar Barakati, kbarakat@vols.utk.edu

Textbooks:

- A Practical Introduction to Applied Statistics for Materials Scientists and Engineers, David J. Keffer, (2015)
- A Practical Introduction to Numerical Methods for Materials Scientists and Engineers, David J. Keffer, (2015)

Course Website:

<http://utkstair.org/clausius/docs/mse301/index.html>

B. Course Objectives:

The objectives of this course are provided in a separate document located at

<http://utkstair.org/clausius/docs/mse301/pdf/objectives.pdf>

C. Grading Policy

C.1. Grade Breakdown

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|---|------------|
| • Exams (3 mid-terms and 1 final exam @ 16%): | 64% |
| • Homeworks (12 assignments @ 2% each): | 24% |
| • Computer Project and Report (1 project @ 12% each): | <u>12%</u> |
| • Total: | 100% |

C.2. Course Grades

Course grades will be assigned on the following basis:

90.0 - 100.0	A
85.0 - 89.99	B+
80.0 - 84.99	B
75.0 - 79.99	C+
70.0 - 74.99	C
60.0 - 69.99	D
00.0 - 59.99	F

This course grade basis may (at the instructor's discretion) be shifted uniformly down, should the overall performance of the class require it. This course grade basis will not be shifted up. (That is, if an exam proves to be too hard and the average is low, an 89% may make an A. However, if an exam proves to be too easy and the average is high, a 90% will always make an A.)

C.3. Homework

- Homework assignments are due at the beginning of class.
- Late homework assignments are not accepted.
- Students can work together to solve homework assignments. However, each student must turn in his/her own work in his/her own handwriting. For homework assignments where computer-generated code or graphs are required, each student must generate their own codes and graphs.
- Instances of plagiarism will be dealt with as stipulated by University guidelines. Please do not force me to have to deal with plagiarism. Remember, you are here to learn.

C.4. Exams

- There are 4 exams, as indicated on the schedule.
- Each exam counts 16% of the course grade.
- Exams cannot be made up unless there is a serious explanation, extreme illness, death in the family, etc.

C.5. Computer Project

- There is one computer project using MATLAB worth 12% of the course grade.
- The computer project will be done in teams of 2 and will be assigned approximately one month before it is to be collected.

C.6. Extra-credit

- As you can see from the grading scale, an 89.99 is not an A, an 84.99 is not a B+, a 79.99 is not a B, etc.
- If you suspect you may be on the borderline and would like the instructor to round-up, you have the opportunity to submit an extra-credit project.
- The extra-credit project will be a two-page typed paper discussing the influence of science or technology in a novel, a play, a piece of music, a painting, a sculpture, etc.
- One extra-credit project per student.
- The topic of the extra-credit project must first be cleared with the instructor.
- If you would like help selecting a topic, see the instructor.

D. Continuing Education Requirement

Students enrolled in MSE 301 are required to participate in five extracurricular continuing education opportunities. This requirement encourages student to adopt the habits of lifelong learning, essential to their success as engineers. Failure to complete this requirement will result in the student receiving an “Incomplete” in the course. The “Continuing Education Form” is located on the course website.

E. Getting Help

Although lectures and text are the primary means of instruction in this course, the instructor is here to help you successfully complete this course. When you do not understand something in class or have difficulty with an exam or homework, you are encouraged to seek out the instructor. Extra-effort will be made to meet with students who regularly attend lecture.

E.1. Email

The best way to contact the instructor is via email.

- Questions regarding course content, grading of homeworks, and grading of exams should be sent via email to the Instructor.
- To guarantee that the email is read promptly, make the subject of the email “MSE 301” Emails with the subject “Help Me!” or similar subjects are identified as spam and deleted without being opened.

E.2. Office Hours

- The teaching assistant will hold office hours at a time and place to be determined.

F. Course Schedule:

The schedule for this course is provided in a separate document located at

<http://utkstair.org/clausius/docs/mse301/pdf/schedule.pdf>