

## MATH 2000 WW1 - Matrix Computations

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- OFFICE HOURS: M-R 12:55-1:50; F 10:45-11:40; or by appointment
- CATALOG COURSE DESCRIPTION: Introduction to matrix computations including determinants, eigenvalues, and eigenvectors. For students in engineering transfer programs. Master syllabus for course can be viewed at:  
[www.pstcc.edu/departments/adv/syllabi/2008/math/math2000.html](http://www.pstcc.edu/departments/adv/syllabi/2008/math/math2000.html)
- Important:** This course is designed for engineering students transferring to UTK in the following areas: aerospace, biological, chemical, electrical, and industrial engineering. Students whose majors are computer, civil, or mechanical engineering or who are transferring somewhere other than UTK need to take the 3-hour MATH 2010 (Matrix Algebra) course.
- PREREQUISITES: MATH 1920
- TEXTBOOK: **All required reading is posted online.**  
Reference textbooks:
- Kolman & Hill, *Elementary Linear Algebra with Applications*, 9<sup>th</sup> edition, 2008, Pearson (on reserve at library)
  - Spence, Insel, & Friedberg, *Elementary Linear Algebra A Matrix Approach*, 2<sup>nd</sup> edition, 2008, Pearson (on reserve at library)
  - Larson & Edwards, *Elementary Linear Algebra*, 4<sup>th</sup> edition, 2000, Houghton Mifflin
  - Anton, *Elementary Linear Algebra*, 9<sup>th</sup> edition, 2005, Wiley
  - A free downloadable Elementary Linear Algebra text by Jim Hefferon is available at <http://joshua.smcvt.edu/linearalgebra/>
  - There are other books on Linear Algebra available at the library
- CALCULATOR: A calculator with matrix capabilities is required. The TI-84 & TI-83 type models are sufficient.
- COURSE DETAILS: This is a web course. What this means for this course is that lectures are replaced by students reading posted online notes and examples. The course consists of nine units. See Course Schedule for descriptions of the units. For each unit, students will read through the notes and examples. They will then work on a worksheet to practice the skills and applications (solutions to these worksheets are posted online). Finally, students will complete and submit a homework assignment for a grade. All items are posted online and are available in PDF format. Access is via the online courses link from the Pellissippi State web page. Students' grades will be based upon homework and two tests (see below).

GETTING  
STARTED &  
ATTENDANCE:

**Important:** There is a one-time orientation session scheduled for Saturday, January 14 from 9:00 to 9:55 a.m. in Alexander 228. I will mark you as having attended class if you attend this session. If you do not attend this orientation session, then you will need to email me at [rtjackson@pstcc.edu](mailto:rtjackson@pstcc.edu) by **Tuesday, January 17**, in order for me to report you as having attended class. Continued attendance will be contingent upon regular and timely submission of homework assignments and taking the two exams as described below.

Students may access the course materials via the online courses link on the Pellissippi State web site when classes start (on Thursday, January 12). After logging in, students will see the link to MATH 2000. Read the instructions and then proceed to the Course Content area.

STUDENT  
SUCCESS:

Your success in this course will more than likely be tied to your effort and dedication in working through the worksheets and the homework. Successful students will spend the necessary time to carefully work through the worksheets, making sure they understand the methods and skills presented. They will also carefully write up their homework with clear explanations and follow all guidelines as discussed below. **Good results do NOT come when you try to do all the homework the night before it is due. It is imperative that you do not procrastinate in this course.** Please turn in assignments by the indicated deadlines.

STUDENT  
CONDUCT:

Each student must do their own homework. It is okay for students to work together on worksheets and homework, but each student must present their own work. Plagiarism, cheating and other forms of academic dishonesty are prohibited. In addition to other possible disciplinary sanctions that may be imposed through the regular Pellissippi State procedures as a result of academic misconduct, the instructor has the authority to assign an F or a zero for the assignment or examination OR to assign an F in the course.

CONTACT BY  
EMAIL:

Please use the following email address to contact me: [rtjackson@pstcc.edu](mailto:rtjackson@pstcc.edu). Do not use the email tool within the online component of the course (i.e. D2L). There are times when I will email updates or reminders to students. When I do this, the message will go to your @pstcc.edu email account. Please check this account regularly to receive these messages.

WORKSHEETS:

Each unit has a worksheet for students to practice problems after reading through the notes and examples. Answers and sometimes brief solutions are also posted for each unit worksheet. Students should carefully work through these worksheets in order to be prepared for homework as described below.  
**Worksheets will not be collected or graded.**

HOMEWORK:

Each unit will also have a homework assignment (there are a total of 9 assignments). Due dates for each assignment are given. **Late assignments will only be accepted in the case of truly extenuating circumstances and if they are turned in before I post solutions. Point deductions will be taken for assignments turned in late.** If you cannot turn in a homework assignment by the due date (see Course Schedule for due dates) then you must contact me as soon as possible. These assignments will be similar to the worksheets described

above.

**IMPORTANT:** Carefully follow these guidelines for your submissions:

1. Print out the homework sheet(s) posted online and staple all your supporting work on separate paper **below** this sheet.
2. **USE A PENCIL!!!**
3. Write answers and explanations on the homework sheets, but, as indicated, show supporting work on separate paper.
4. Supporting work must be done on loose leaf notebook paper (**NO SPIRAL BOUND RAGGED EDGES!**).
5. Write on **only one side of paper**.
6. For supporting work, leave 1" margins on each side of paper.
7. Write your name in the margins on the upper right hand side of **each** page.
8. **Staple** all pages together in the upper left hand corner.
9. Clearly write out all explanations in complete coherent sentences. I may deduct points if what you have written is NOT neat and clear.
10. Make a copy of your work for your own records before submitting.

Each assignment will be graded out of ten points (thus a total of 90 points for homework). If I am not in my office (AL 210), please place homework in the folder to the left of my office door (under the corkboard) or slide under my door. **Assignments can only be turned in when the Alexander Building is open.** They usually close up around 9 or 10 PM on weekdays. Students can always submit work before the deadline.

Students may also fax or email their homework if they have the capability and know how to do this (my fax number is 539-7680 and my email address is [rtjackson@pstcc.edu](mailto:rtjackson@pstcc.edu)). Fax or emails must still be received by the respective due date. I prefer the fax over the email attachment if you have the choice.

Homework may be picked up from my office approximately one week after the respective due date. I will post solutions to each homework assignment online after the due date. **Once solutions are posted, no assignments will be accepted.**

**TESTS:**

There are two tests: the midterm exam and the final exam. Each will be worth 45 points. Both exams must be taken in the Testing Center on the Pellissippi Campus in ERC 122. The midterm must be taken in the testing center from Friday 2/24 through Friday 3/2. The final exam must be taken in the testing center from Monday 4/9 through Wednesday 4/18. Please check the Testing Center hours in advance, as they are open at different times on the different days of the week. Students must bring a picture ID, pencil, and their graphing calculator. No other items, including cell phones, are allowed.

**COURSE GRADE:**

Your grade will be based upon the **percentage** determined by dividing your points by the total possible points. Total points will be 180 (9 homework assignments @ 10 points each and the two tests @ 45 points each).

**GRADING SCALE:**

93-100: A; 88-92: B+; 83-87: B; 78-82: C+; 70-77: C; 60-69: D; Below 60: F

**EXTENDED  
COLLEGE  
CLOSURE:**

Pellissippi State Community College is committed to the educational process and student learning. In the event of a prolonged college closure (of at least a week), I will post information about how we will continue the course in the “Course News” section within the online component of the course. If the college’s web page is inaccessible, use the link <https://elearn.pstcc.edu/> to access the course. It is the student’s responsibility to regularly check this site for class news and updates.

**HELP:**

Please email, call, or see me during office hours or make an appointment if you have any questions. I am your primary resource for help.

**SML:**

Students have the opportunity to earn extra credit by participating in the Student Mathematics League (SML). The SML is an international competition consisting of a multiple-choice test at the precalculus level. Students who participate, give an honest effort, and stay the whole time (1 hour) will receive 5 extra credit points (or about 2.8% of final average). Go to [www.pstcc.edu/facstaff/rtjackso/sml/smlinfo.htm](http://www.pstcc.edu/facstaff/rtjackso/sml/smlinfo.htm) for more information.