CHEN3600

Peer Advice from Fall 2011 Students to Spring 2012 Students

1. My most important piece of advice for you is to try your best to learn to APPLY the functions available to you in MATLAB to real engineering problems. Do not just memorize syntax, but instead gain an understanding of what the functions in MATLAB are doing, that you would otherwise have to attempt to do by hand. MATLAB is an excellent tool, and if you can make effective use of its application, it will help you in many courses other than just 3600. Also, dedicate a large amount of time to the kiln-firing project. This is probably the first real engineering assignment that you will complete in this major, and there is so much to learn from it. If you will make the effort, Dr. Ashurst will help you drastically improve your technical writing skills while also improving your technical engineering skills as needed to approach the problem. My other advice is to practice solving problems in MATLAB. If you find yourself in a time crunch on an exam, you do not want to miss points because you cannot remember how a specific function or method should be formatted. Dr. Ashurst offers plenty of practice through homework and lab assignments. Do all of them. The best way to teach yourself application is to practice. With some of the more difficult lab assignments, there will be multiple possible approaches to solving the problem in MATLAB. If you cannot figure out how to work a problem, go see Dr. Ashurst. He is very helpful in office hours. If he tells you how to work a problem that you cannot figure out, step back and see if there’s another way that you could solve it on your own. If you dedicate ample time to this course and understand the most important MATLAB functions that will be presented, you will have gained an excellent tool for you as an engineer by the end of this course.
2. My biggest advice for the next class is to search the MATLAB docs to figure out all the commands MATLAB has so then when you are trying to solve problems later you know what MATLAB can do for you. For example, the function dsolve solves a differential equation using symbolic variables. Next, you should get old test problems from other students so as to get an idea of the complexity of the problems on the tests and the types of problems asked. Then you should practice solving them, and after you know how, practice on your speed of figuring out what the code should be and coding it in correctly and quickly. A third piece of useful advice is to use MATLAB to solve problems for your other courses so can practice using it. Next, you need to learn how to use fsolve very well and efficiently by reading the doc section and lectures in class because it is a very useful and complicated function. For the report, learn about how thermocouples and cones are used in a kiln so you can understand the process for the report, and what is happening. You should also go talk to Dr. Ashurst to learn how to write a technical document and what key points to include in the report. For example, you need a standard to compare all your data to, so you should use the theoretical data to create a base line. That's all my advice so good luck.
3. DO NOT MESS UP ANY FILE NAMES OR EMAIL SUBJECT LINES!! YOU WILL RECEIVE A ZERO ON THE TEST!!! Also, go to his office hours when you do not understand. He is very helpful one-on-one. Finally, do not wait until the last minute to complete your report. You will have many other assignments to do (in this class and others).
4. My advice to the next class would be to attend every class and gather as much knowledge about the things talked about in class as possible to help with homeworks and labs. It is always good to turn in everything because every point counts. I wish I had gone to office hours more. Getting one on one help can benefit anyone. When studying for exams, I would read the chapters and work through the examples with MATLAB. What I should have done is made sure I knew the major functions that we implement everyday in MATLAB and when do different things with them. Asking questions in class will help tremendously. Of course, always study as much as possible!
5. I would advise future CHEN 3600 students to read as far in advance as possible. The class starts slow but quickly accelerates into more difficult material. Without a firm grasp of the basic material efforts to succeed are futile. Don't be afraid to ask questions during class. Usually only half of the class is paying attention so your question will be of importance to you and others. Do all of these things and you will be successful.
6. This course is difficult, not because the material is particularly hard, but because of wide range of applications that this material has. It is easy to become distracted by the wording of problems, and the extraneous information given. When presented with these problems, it is important to remember that they can be broken down in to the fundamental techniques presented in class and then solved. The assignments are similar. Most of the most difficult labs occur near the beginning of the class. It is important to break these down to their fundamental parts and not be overwhelmed by the length or involvement of the problem. Remember, all of the assignments and problems (test, lab, homework, and project) are given for a reason, either to test particular concepts or the ability to combine multiple ideas. If you spend a minute determining whether each step requires an iterative solution, a differential equation, discrete data, statistics, or a logical decision the overall problem becomes much easier.
7. In MATLAB programming, much of the complicated and more sophisticated problems build off of simple principles learned early in the semester. Make sure to start off strong with a thorough understanding of the principles and the more sophisticated problems will come more naturally. Also, going to class is not enough for this programming course. In order to succeed it is necessary to actively engage in class: participate with the instructions, ask questions, and try to understand the reasoning behind the thought process of programming as opposed to just listening and copying down the steps. Likewise, reading the book is not enough. Actively participate and interact with the textbook. Take notes and work the example problems on your own and then check your solution with the one provided in the textbook. An excellent way of testing your knowledge of the material is in the "Test Your Understanding" sections of the textbook. These sections cover many of the important skills that are essential to the more complicated problems. A complete mastery of these skills is very important. When it comes to homework and lab make sure you do all of them! It is tempting to try to rationalize that missing one homework or lab is not a big deal. Although missing one might not hurt your grade that much, it can destroy your understanding of the material and prove detrimental to your understanding of the material (the skill or technique which the homework or lab is directly assessing AND the skills and techniques which will build off of the particular homework or lab)
8. In addition to the standard success strategies such as coming to class, reading the text, etc., I found that my most valuable learning tool was my method of approaching assignments (lab and homework). DO THE HOMEWORK BY YOURSELF! Do not get a friend to help you. Struggle with the material and in the end you will understand the way MATLAB works; you will know the methods that work AND the methods that do not work. Both are equally important. Understanding why something doesn't work is just as important as understanding why something does work. If you immediately seek outside assistance for the solution upon finding an error, you will miss half of the learning opportunity. That being said, CHECK your homework with friends. Only knowing one method of solving a problem will not cut it in this class. Only when you have truly exhausted all methods to achieve a solution have you really solved the problem. I know it sounds crazy, but doing this is what can set you (and your average) apart from the rest of your class. Also, allow lots of time for the project. Do not underestimate the amount of time it will take to develop your solution and not just to write the solution out. And once again don't lose sight of the fact that there can be more than one solution. Don't change your method just because someone else is working it differently. This is your first real opportunity to make "engineering" decisions, and following in the shadows of someone else's project -- even if you do all of the work yourself -- will rob you of the core of this course.
9. I would advise the next CHEN students to work as many practice problems from the book. If you are provided with any test problems from previous tests make sure you understand. They will help you a lot on the test. Reading the book before class, before actually being taught the material, helps a lot to understand and follow examples worked during class. fsolve isn't in the book, however there are some helpful websites that you can use to understand it. Ode45 is a little difficult to understand, but if you take the time and look at different examples it is easier. The help function is very useful to understand different functions, however I preferred the doc function. It explains things in more details and it shows multiple examples. I would recommend working in groups to study. It makes it easier to understand and it helps a lot. For the tests, be sure you use good time management, because time can be a major factor. If you don't know a problem, especially a no partial credit problem, don't waste time trying to figure it out. Instead go on to problems you do know and if you have time afterwards then you can try to figure it out. I also suggest working the test after you get it back. It helps with understanding and it is also good practice.
10. My advice to future student taking CHEN 3600 is to get ready for a long tough semester. I have had to retake this class four different times now and can honestly say that you earn everything you get in Computer Aided. Every bit of spare time available should be used as time available to study. Even if it is only reading old notes, every minute spent studying the material presented in class will put you that much more ahead of the rest of the class. This class does not get any easier when retaking it either. Each semester requires the same amount of effort and preparation to be in a position to receive a passing grade. Regardless of the number of times I have retaken this class, I can honestly admit that during this past semester I have worked harder than I ever have in my life to pass. I now realize what must be done to pass CHEN 3600 and do not want future students to have to endure what I have while taking CHEN 3600. If students will complete all assignments to their best ability, attend class everyday, review the class notes, and seek out help when needed, CHEN 3600 will present no problems. However, if they are not willing to do what is necessary to pass, CHEN 3600 will not be an enjoyable experience.
11. You will get behind quickly if you don't get ahead. The homework can be difficult so allow plenty of time to get it done. Believe it or not the labs aren't impossible. The exams are exceedingly difficult and will make you wonder how an idiot like you got this far in chemical engineering. Lighten your course load this semester. Drop your yoga class and spend some extra time in front of the computer. Make friends in class. Do homework and labs with your classmates. Sometimes you won't get something and someone can show you in 2 seconds. Try to do homework from other classes in MATLAB. Solving systems of equations and iterating with the software will save you lots of paper.
12. First and foremost, read the textbook to get a general idea of how you should approach a problem. Next, read the doc files for the major functions. Two of the most important functions are fsolve and ode45. Make sure you understand these functions because they have extremely varied applications. Once you've read the doc file, try experimenting with the functions to make sure you can apply them to a variety of situations. You will be asked to apply these functions to seemingly strange situations on the exams so it's best to have a complete functional understanding of their applications. If you're having trouble learning a function, it can help to study in a group. Another person who understands the functions can explain them far better than the textbook or the doc function. On the exams, focus on one problem at a time. You will not finish the exam, so it's best not to get bogged down worrying about it. Also, make sure you submit the exam correctly, you will get a zero if the submission is not in the right format. On the homework and labs, you might be tempted to simply copy somebody else's answer but this is very detrimental in the long run. You must understand how to work all of the assignments and why the functions within them work the way they do. On the reports, make sure you follow the technical memo format to the letter. It looks far more professional and you are likely to make a much better grade.
13. The help and doc systems are your friends. If you know which function you are supposed to be using, but aren't quite sure how it is supposed to be set up, consult these. The doc system has examples that you can copy and paste and they will work. Understanding those will lead to your understanding of the function and allow you to apply it to your problems. Definitely read the doc system and know how to use the following functions: while, if, for, plot, fsolve, ode45, nlinfit, ztest, ttest, and ttest2. I also suggest that you just play around with functions as much as you can. After reading up on the docs, see what you can do with it. Coding is an art and you need to know how to do as much as possible with a given function in order to apply your knowledge to future assignments.
14. CHEN 3600 is without doubt the hardest class I have ever taken. Much of the information is understood simply by studying and applying yourself, but with critical analysis and deep understanding of the issues. You must not only have a firm grasp on the engineering concepts employed in questions but also the computer language, MATLAB, you will use to express your answer. My advice is to go back through your MATLAB notes and fully understand the programming language before trying to answer any problems in 3600. You will need to put in considerable more time than in any other class. Do not wait until the last day to start and assignment, because you WILL NOT finish. Find a good study group, and also speak with your GTA's and professor as often as possible. This class was easily the most difficult class for me to conceptually understand what I was doing. I fell behind reading the chapter and working through the practice problem and struggled greatly. Don't make the same mistake. Also even if you can do the hw problems continue to try and further understand the topics, because the tests will be much harder questions and under serious time constraint. GOODLUCK!
15. To do well in this class, a mastery of the material is necessary. Studying and doing work in groups is very helpful. Also, it is extremely helpful to go into Dr. Ashurst's office hours. He explains concepts much more thoroughly in his office. Also, knowing how to work a problem several ways can be helpful. Knowing how to do all problems is necessary, as well as, knowing how to do them with a small change in them. The internet is a helpful tool when you're confused because often people have the same problems.
16. Be sure to master all major functions as soon as possible when they are presented. Read the entire doc system for all functions declared important. Understand what types of problems they are useful in solving and know how to apply them to each type. Doing all of the labs and homeworks on your own will make the tests significantly easier than working in groups. Many solutions seem trivial after you have seen them, but you must be able to come up with them on your own during exams. For all tests, be sure to read the problem a couple of times and think about it before using MATLAB. Think about how you would solve the problem, decide what functions are required in MATLAB, and then start working. In addition, use the doc system on tests! Spend your study time working problems, not memorizing the order of variables must be inputted into various functions. This and a lot of other information is immediately available in the doc and help systems.
17. My biggest piece of advice to future CHEN 3600 students would be to write detailed comments throughout your script as you work through the assigned labs and homework. Writing comments serves as a test for full understanding of the code. The comments should be written in general terms that are applicable to any similar type of problem. This allows you to revisit the completed material before each exam and be able to talk through the application of each function. I would also suggest working through the examples from the textbook chapters for extra practice.
18. To the class next semester, I would note that note taking during lectures, whether lecture time or lab time, is ideal. When preparing for a lab, it is necessary to take down all information presented in order to gain a clear understanding of what is meant of the lab and the final concepts to be learned from the lab. When it comes to test taking, I began with the partial portions of the exam and this method seemed to be the most advantageous. Once the partial portions were thoroughly conducted, the student should then move to the non-partial portions of the exam. Also, be certain to make ample use of your time during the exam and go into the exam with a plan of action. When studying for the exams, it is useful to go over previous lab assignments and have a firm understanding of the concepts taught through the end of chapter questions. Be sure to name files in a descriptive manner that will allow the student to find them when needed. The most important thing is to listen during class, take very thorough notes, and mostly to ask questions.
19. For CHEN 3600 old test seem to help the most. They give an idea of what kind of logic you need to develop in order to do the problems. Also on the test always start with the partial credit problem first and don’t waste time on the non-partial credit unless you are completely confident on the solution. Also studying for the test should involve knowing common functions such as sin(x), cos(x), x^2, etc.
20. My advice for the next class would be to do your homework in the computer lab because there are almost always people there who will be able to help you if you have an issue with the functions or understanding what the question is asking. On the other hand if you don't have anyone to assist you and you're truly stuck, leave it for a day or so. I had multiple times where the solution just came to me while I wasn’t even doing MATLAB work.
21. As I reflect upon my CHEN 3600 experience (which, hopefully, will not be one that I have to repeat), there are several things I did that I feel aided me, and several things I wish I did that I feel could have aided me further. One thing that did help was physically writing notes for the class. Typing up examples in MATLAB is important, but I’ve always found that actually WRITING notes with pen and paper really forces me to think about and analyze what I’m hearing (in fact, I wish I had written even more extensive notes than I have). Another strategy I used had to do with the project: Not waiting until the last minute proved invaluable in writing a solid report! Although, it seems cliché to say “don’t procrastinate”, the temptation in doing so for the project can often be greater than most expect, especially when the project is so seemingly complicated at first. Working on the project little by little proved invaluable to me. Whenever I hit a snag, I still had ample time to talk with the professor about possible solutions. Moreover, by completing “rough drafts” before the actual report was due, I was able to get feedback on my technical writing BEFORE it was being graded.
22. I would suggest that the students use the book as much as possible. It's really helpful to work through the text as you read it. In addition, try to work as many problems at the end of the chapters as possible. It's good practice for working on problem solving skills. Keeping up with the labs and homework is a must as every little point counts in this course.
23. First off, do not fall behind as once you do, there shall be no coming back. Second off, I'd suggest working out the problems in the back of the book before lectures as the level of working knowledge expected to gain anything from the lecture is a bit too high to obtain from just reading. Lastly, I'd simply suggest to thoroughly review ANY math courses you have taken as you will NEED them during this course.
24. My advice to the next CHEN 3600 class is to practice using the functions you need to know. The more you use the functions in different situations and problems, the more likely you will be able to apply them in a test situation. When doing the labs and homeworks, try to find multiple ways to solve a single problem and experiment with many different functions. Knowing how to approach problems from different angles is important and knowing the capabilities of each function is invaluable. Also, do not wait until the last minute to complete the reports. They will take up much more time than you may expect and your grades will suffer if you don't take care of it as soon as possible.
25. This class is difficult no matter how you look at it. I think a very essential key when approaching this class, however, is to have a positive attitude. If you think "There's no way I'll be able to pass this class," then you won't! Have faith in yourself, and that will be the best starting ground. Also, read the assigned readings before coming to class, then after lecture that day, go home and read them again - the concepts will be so much clearer. Go to office hours - if you are confused about something, you need to get clarification! It will not suddenly make sense to you one day. Get the extra help so that you can fully understand the information. Same goes for the homework - start early so that if you don't understand something, you can get help before the homework is due. Once you get the homework back, there's only a small chance that you will ever look at it again. Finally, use the lab assignments on Tuesdays and Thursdays to your benefits - they give you a much better idea of how to prepare for the tests than the book homework does!
26. In order to be successful in CHEN 3600, you cannot be discouraged when you are not able to solve problems. Oftentimes, especially in exams, you might be sitting there, 30 minutes in, and not have a problem answered. Stick to you guns and keep trucking. When you become discouraged, you will fail. Also, take advantage of help from the teacher and fellow students as well. Typically, everyone is willing to help, all you have to do is ask. Never be afraid to ask questions in class either. Odds are, many other people have the same question you do.
27. Dear Future 3600 students, You have finally been accepted into the Auburn chemical engineering curriculum. Congratulations. You are also about to take, easily, the hardest, most stressful, most taxing, and most demoralizing class to date. Congratulations again. 3600 is not a walk in the park, but more like a trek through Death Valley, and the only sense of satisfaction is when it's over. The only way you will have a chance to pass this course is if you study hard and have a basic understanding of what is going on in the class. Here's a few simple things that may help you: - Turn everything in. EVERYTHING. Get the points. The percentage of the grades don't exactly work in your favor, but maximize your points by turning homework, labs, and quizzes in. Even if it's just a copy of the question and an attempt to get an answer, turn everything in. - Expect to fail...a lot. There's no way around it. It will destroy your self-esteem, but it's important to not dwell on it. This is a difficult class and failure is a part of it. Get past it, move on, and tackle the next subject at hand. - \*\*\*NAME YOUR FILES CORRECTLY\*\*\* Because nothing is more heartbreaking than working on an exam for an hour, sending it in, then getting a 0 on it because you failed to name the file correctly. - Practice MATLAB. The more practice you get with the program, the easier it is to understand. Play around with it, explore it, and if you keep getting red alerts that tells you you're doing something wrong, keep playing around with it and get it to work. It's frustrating, but it's for your benefit. - Be ready for a lot of work thrown at you at once. Not a night owl? Get used to it, or get very, very organized.
28. It would be in your best interest to study in groups. Work through the labs and homework in groups. It is very helpful to talk through the problems. This gives you a better understanding of the material. It also helps to take turns explaining how to work through the problems to each other. This ensures that you know how to work the problems well enough to teach it. The doc functions built into MATLAB are very helpful in explaining how the functions in MATLAB work. They give good examples using the different functions in various ways. That helped me out a lot.
29. Try to work the examples in the book without looking at the answers. If you do not have any idea of what to do, look at the answer and make sure to understand what is happening in the example. If it still does not make sense, read the section again and compare with class notes. At this point, if something still does not make sense, make sure to see the teacher. Any examples that are covered over multiple class days are probably things that will reappear on exams, labs, homeworks, or quizzes. Do not freak out on the tests! Think through your solution before you attempt to write the code. The no partial credit sections are typically easier problems than the partial credit, so make sure not to spend too much time on the partial credit.
30. My advice to the next CHEN 3600 class is to take the time to spend time reading the chapter and figuring out the labs on your own. It is also helpful to time yourself while working problems in order to put yourself in a ?test time? situation. I think one of the most important things to remember though, is that you are not alone, if you don’t understand something, don’t be afraid to ask a classmate, GTA, or the teacher for help. One of the most helpful things I did was to use MATLAB for my other homework. I used it to solve Thermo 2 and Transport 2 homework- this allowed me to become more familiar with the ode and fsolve functions, which were used throughout the semester in Computer Aided.
31. My advice to the next class would be to understand all the homework and lab assignments very well, and not to just get them done and turned in for credit. In my experience, I learned everything from being in class and doing the homework and labs. Most of the studying I did was just to review the capabilities and implementation of the various MATLAB functions to the problems. I would warn the students that tests are extremely challenging and that they have to be super fast to score decent points. Therefore they must understand the program so well that they can quickly and creatively solve problems.
32. The big functions, such as fsolve and ode45. Get all the easy points you can be the tests are challenging. Tests require high level of critical thinking. Just memorizing formulas/code will not be good enough. Need to be able to examine a situation and recognize what is being asked for and how you go about finding it. Then have to apply what we've learned in class to the situation. Go over as many examples as you can because this will help you learn how to apply the various functions to different types of problems.
33. As for advice for the next semesters class, I would say do as many assignments by yourself. Take the time to actually learn and understand the information. Utilize the professor's office hours; go to him or her when you do not understand the information. Ask questions in class, there are no stupid questions, especially when trying to learn a new language. Understand the analytic basis behind each function in order to further your understanding on the information presented.
34. During the test I would suggest to work on the partial credit problems first, because even if you don't get them correct, you can still get some points. I would at least attempt every problem on the test to some extent because some of the problems can actually be easy. I would also suggest to brush up on calculus and differential equations because they play a major role in many of the problems encountered. I would also suggest to save everything you do on a flash drive because the computers like to delete certain files every now and then.
35. I would tell future students to go to Dr. Ashurt's office hours. Not only is it beneficial to be a familiar face to your professor but it will also help students out more than they think. This shouldn't need to be said but everyone do your homework! Computer programming can get very confusing so if students don't keep up with homework it is very difficult to follow along in lecture.
36. \* Always make sure you understand the problem before writing code. \* Reasoning is a big part of this course. \* Use the textbook to really learn the basics of MATLAB and getting familiar with writing MATLAB code. \* The faster you are able to write the code, the better the chance is to pass this class. \* Use the help/doc command to learn the built-in functions and commands. \* Study and understand the formats of the built-in functions and you will find it easy to use. \* Learn to write functions efficiently, whether it be regular function files or function handles. \* Get familiar with writing loops. Sometimes loops make problem solving much easier if the problem consists of repetitive parts of code. \* Understand the basics of linear algebra will be helpful, since MATLAB is built on linear algebra.
37. To succeed in Computer Aided Chemical Engineering, one must have confidence in their ability as a student and young engineer. This confidence can only be brought to bear by careful and thorough work and preparation to fulfill one's objectives as a student. In a class such as CHEN 3600, working in groups to complete assignments is commonplace. Although this obviously can be advantageous to one's learning, it is crucial that one understands the course material for oneself, to the greatest of detail. It can be tempting to ask for advice on an assignment, and then take the advice as "the gospel" without critically thinking on it for oneself. Then, what results is providing a solution that one does not fully understand. This way of completing the course assignments is lethal to your success in CHEN 3600, and it will return to haunt one eventually. So, above all, make this material your own. The problems and topics which are brought up in this course are vital to your success at Auburn, and in your future career - therefore, it should be treated accordingly.
38. The first and most important advice I would give concerning CHEN 3600 is, do NOT take it lightly. This class is very difficult for most people. If you need to be a full-time student, take fluff (easy) classes with it. You should take no more than 2 other CHEN classes with it. If there is an aspect of the class that gives you trouble, spend extra time on it. Harass your professor, your T.A.s, be sure to fully learn and understand what it is that's giving you trouble. The things you have trouble with will NOT go away. Most likely, these are the things that the professor considers most important and they will keep coming back.
39. Research a lot of example problems to try and explore every aspect of a function. That way you are not just explosed to how they use them in the book.
40. Research a lot of example problems to try and explore every aspect of a function. That way you are not just explosed to how they use them in the book.
41. has helped me the most is no matter how frustrated I got I never gave up. The first time I took the course, my constant poor test scores and quiz grades frustrated me to a point where I just gave up. The second time around when I hit that point, I just kept fighting and have pulled myself to an acceptable, in my book. Also what has helped a great deal is learning your test taking strategy for the course. Never attempt a non-partial credit problem over a partial credit problem unless you are 100 certain that you know exactly how to do it. In this class every point is like a nugget of gold and 1 of the class holds 90 of the gold. So if you are in the other 99 of the class one point can mean the difference between passing or failing.
42. To succeed in this course one needs a lot of patience and not give up because their codes don't work on the first trial. frustration will be a familiar feeling. Going over the lab assignments and the tests more than once and approaching each problems from different angles. The homeworks can help too but not as much as the labs and the tests. I would recommend to use MATLAB for other classes like CHEN 3620 and CHEN 3370 to get familiar with functions like fsolve, ode45, nlinfit and fminbnd. Always find way to use MATLAB in order to increase your pace. Sometimes the mathematics itself can be an issue, especially toward the end of the semester. Do not hesitate to use office hours and/or go back into your math professor. This class is really time consuming, working in groups might be a good idea.
43. To succeed in CHEN 3600 you should start by learning the basics of MATLAB, as they are the building blocks to solving engineering related problems. When preparing for class, quizzes, and exams you should practice problems and try to understand the concepts before approaching the computer. If concepts behind problem are not clear it will be much harder to write a program to solve the problem. For test taking I would recommend focusing on time management and spending equal time on all the problems. As no partial credit problems are sometimes simpler than partial credit problems and involve less lines of code. It is also good to take advantage of the help and doc functions already a part of MATLAB. The help function can give you direction on the syntax of the function as simple examples showing how to implement.
44. From experience, I can advise an incoming student in CHEN3600 to do many things. First and foremost, stay on top of your assignments, but not only do them, enrich yourself in the content. Become an expert on what you are doing and prepare questions for class so that everyone will benefit. Your best friend in the class is the professor. Learn what is expected of you by reading the course outcomes as you perform course work. By reading the course outcomes, one will understand the purpose behind doing certain assignments. Do not be afraid to approach the professor during office hours and entice the professor with questions regarding the days lecture or lab assignment. Continually challenge yourself to be better. One special thing about MATLAB is that there is not a specific way to meet one goal. That goal can be achieved many different ways. Once a solution is reached, ask yourself, "Could I have done that more efficiently or in a different method?"