CHEN3600

Textbook Advice from Fall 2011 Students to Spring 2012 Students

1. The textbook is very good for this course. The material is concise, but the examples are very in depth and helpful. The textbook does not present many difficult homework problems on a conceptual, engineering level. However, the homework problems presented are very efficient at helping the student learn to use MATLAB. The book’s not having information on fsolve was the biggest problem I encountered this semester. I was able to learn a lot about nlinfit, ztest, and ttest from the doc system within MATLAB. However, I thought the doc for fsolve was very confusing. If the book had included fsolve material, I probably would have understood how the function works at an earlier time in the course.
2. The textbook was clear and detailed. It summarized the functions it was using in the text well. The homework problems were clearly written and corresponded well with the sections in the chapter, which helped reinforce the material well. All the example problems in the book were very useful because they showed how to apply what the problem was asking for into MATLAB code. One part I believe the textbook was lacking was explanations on how to use fsolve, as well as the complexities of the calculus commands (ode45 and diff). Another problem I had with the textbook was the simplicity of the example problems. While they were clear and straightforward, it never had any complex example problems, so it was difficult to prepare well for the test without having access to many problems of the complexity level of the test and their solution.
3. The book explains major MATLAB concepts very well, but I feel it is very limited in the amount of functions it details. Also, it is not effective in helping students with programming. For basic objectives, the book provides a good foundation, but anything extensive, which is what the class is meant for, the book is not very helpful. Furthermore, for many of the questions the book asks at the end of the chapter, I do not feel the book is an adequate resource. This seems problematic to me. As long as student's are aware of its shortcomings, I think it is a fine starting place for student's to learn MATLAB.
4. The textbook offered for this class, to me, was good for the general basics of MATLAB. When it came to more complex concepts, like ode45, fsolve, and nlinfit, it did not satisfy my needs. Going back to that last sentence, fsolve and nlinfit, two of the most important functions we have learned this semester, were not even present in the textbook. I think it would be better if there were more examples of types of problems that we would be solving in labs or on exams instead of the easy, generic, problems that are present in the textbook. Some parts of the textbook were difficult to understand. I felt like that while I was reading the chapters, the concepts that were presented were presented in the most complicated way possible. That was only for the integration chapter specifically. Overall, the simplisticity of the book helped a lot, but I would have preferred more examples.
5. I liked our book for this semester. It was very effective at presenting the information in its most basic form. However, the example problems and homework problem sets were too straight forward and simple. I also wish there was a supplemental text that presented more challenging engineering problems. It would have been helpful in preparation for the in class tests. It was good that the book we used had some of the solutions in the back.
6. The text used in the course was a good supplement for the material presented in class. Both the example problems and the homework problems were of the right scope and difficulty to be informative while not overly frustrating. However, the book was not helpful for the more complicated concepts presented in class. Functions such as FSOLVE, ODE45, and NLINFIT are not well covered in the book. If they are, then the more complex uses, such as passing parameters and solving systems, are not presented. While these are covered in class, some students would benefit from a visual presentation of these topics that they can read for comprehension.
7. I believe that the textbook does a sufficient job in explaining many of the basic operational qualities of MATLAB. The textbook provides good example problems and has many problems to work. However, I do believe the textbook falls short on many accounts. First, the quality of the textbook questions is good for many of the beginner problems but does not contain many questions that are the level of the skill required in this course. Furthermore, it is hard to access ones level of understanding of the material presented in the book when the answers to many of the "test yourself" questions and homework problems are not given in the book. Finally, there are some subjects in the book, like ode45, stats, and interpolation where more detailed instruction and examples could be useful. Overall, the book is of good quality for learning the principles of MATLAB but does not provide good instruction on the more sophisticated operations available in MATLAB.
8. This textbook overall was a very effective and useful learning tool. The explanations were clear and easy to understand. The examples reinforced the material in a way that balanced problem-solving skills compounded with apply the recently taught MATLAB techniques. The ratio of examples to explanations created the optimal balance to maximize learning and application. The homework problems were just hard enough to require the student to really understand the principles being taught but not overwhelming or excessively time-consuming. My only wish is that everything covered in the course was in the text. Functions such as fsolve, nlinfit, and the probability functions were either lightly discussed or missing altogether. Despite the corresponding relevant lab assignments, having homework over those elements would have provided further insight into those functions as well as having another perspective on the material (in addition to Dr. Ashurst's).
9. The textbook provided helpful examples. I liked how it would put the functions used in a chapter in a table with information about each function. The problems in the book were helpful, however they were easier then test problems. It was frustrating that the book did not cover fsolve; however I was able to find websites and use the doc function to figure that out. The book provided good pictures when working on graphs, that made it easier to understand the more complicated 3 dimensional graphs. I found that working the test your understanding problems or the end of chapter problems that had answers in the back of the book helpful because it was a way for me to check to make sure I was doing the problems correctly.
10. In my opinion, the textbook used for CHEN 3600 was very good. It provided me with a thorough general introduction to many capabilities available for use in MATLAB. However, I feel that there are a few things that are not covered as well as they should or could have been. The Palm textbook was a huge help with learning to plot and solve general equations using MATLAB. However, areas covering subject such as fsolve could have gone into much greater detail. The textbook examples provided were also a huge help. They covered a wide variety of problems applicable to a number to engineering fields. The explanations of the problem solving steps provided in conjunction with the examples also made the Palm textbook a good choice for use with CHEN 3600.
11. Overall the textbook was acceptable. I used it mostly for reference and a guide for studying what was taught in the lectures. Some of the most helpful materials for me were found online. Just reading the book and practicing the problems within did not prepare me for any of the exams. Honestly if the homework problems didn't come from the book I wouldn't have had very much use for it at all.
12. Student The Textbook was helpful, it provides an excellent overview of each problem type and different ways to approach those problem types. Typically, I would use the book to find which functions I needed to use, and I would use the doc function within MATLAB to look at specific functions and how to apply them to different situations. Furthermore, the textbook provides excellent examples for when you are learning new functions. Student The textbook is O.K. It explains things well and has good diagrams for loops. It also has a good section on ode45. However, it does not have any explanation on fsolve, binocdf, normrnd, ztest, ttest, or ttest2. Fsolve was described well in class and understood after much practice, but not having time to go over the statistics part in class made it hard to complete Lab 12 without any information from the book. If some sort of supplement could be created that included these functions and their uses with detailed examples, it would greatly benefit the future classes. The book is a good guide for beginners but it can't make the jump to the applications that are necessary in this class.
13. Student I did think that the Palm textbook was better than many of the other engineering tests I have been required to use at Auburn. The step by step process in which it explained example problems was the best part. Many of the problems in the back of the book seemed impossible at first, but flipping back and forth in the chapter really helps and allows you to critically think your way to the answer. A negative of the book is that it is missing some of the information we cover in lecture such as fsolve. Students had to find other reference sources to study such topics. Also the symbolic expression of math equations and such in the book is somewhat difficult to understand. All in all I believe this textbook was a useful tool in my progress of understand computer-aided engineering.
14. Opinion of the text book: This text book is much better than the book used for COMP 1200. Some of the examples are helpful, but they didn't help solve the problems that we were given in class. It would have been nice to have chapters on fsolve. Also, it would've been nice to have a more in depth study of statistics because we learned statistics so quickly in class. Also, some of the homework questions I felt went outside of the scope of the information in the book. Overall, the book was good. It just lacked some important information that would have been helpful.
15. I think the book is helpful when extra problems are needed to master the use of a certain function or type of problem. Many of the end of chapter problems were useful in mastering the material. However, the book's content was greatly lacking in explanation of certain functions, and I could not use it as a standalone in learning MATLAB. Too many functions are listed in the chapters with extremely brief, unhelpful descriptions. The only section I found very helpful after reading was the ODE portion. In most instances, the doc system was much more helpful when I had trouble with a certain function. Overall, I found the book to have good problem sets, but to be lacking in quality content.
16. The textbook homework problems were applicable to the course material in some cases. However, I believe that the major functions were not represented well in the text. I would have appreciated a broader explanation of the functions: fsolve, nlinfit, ztest, ttest, and ttest2. It also would have been more helpful to be exposed to the options packages of these major functions in the text. Another improvement to the text would be to provide a greater number of answers to chapter problems in the back of the book. This would allow students access to work and check extra problems aside from the assigned material.
17. For CHEN 3600, the assigned book was helpful when needed for basic concepts of MATLAB structure. For examples of loops, such as, for, while, and if statements the book provided excellent understanding of the logical steps of each. Also knowledge of array concepts and functions within MATLAB could also be found in the text. Once the class moved ahead into advanced problem solving, the book could still be used as a starting point, but the class note began to be more useful.
18. The book provides decent examples of what is covered in the chapters. The homework problems were similar to the example in the text and were easily followed along with using the doc help system. However, the book seemed to lack when trying to solve problems from the labs, tests, and project. It seems that the book is fairly introductory to MATLAB and could be used in COMP 1200.
19. I thought the book was good but that it also had it's down points. I thought that the problems in the chapters were good but I wish that there had been answers, not solutions but answers, in the book. I also would like it more if the book had better descriptions of some of the functions. It also had very little regarding some of the functions used in class or that were needed for the homework.
20. I would say that the textbook for the course was decent. I enjoyed the way it was formatted; it provided for a quick and easy reference to function syntax, as well as a logical progression of programming techniques. Moreover, I felt that the practice problems provided an adequate means to test one’s mastery of the chapter content. A few things, however, I found lacking. Firstly, some functions that we use in class more extensively are not given much treatment, especially the ‘nlinfit’ and statistics functions. Another thing I would say the text is weak on is the examples. I often found the examples too few and far between, and sometimes too simplistic to really show the best way in which to implement certain functions.
21. I thought the textbook was a very good supplement to the course. It explained many of the topics clearly and had several instructive examples. There were some aspects that I wish could have been explained in a little more depth such as the use of quad, ode, and regression methods. I felt that there could have been a few more examples on these topics. In addition it would have been nice to have fsolve and nlinfit included in the text to provide another reference besides the doc system. Student The textbook, whilst being decent does not do its job well as its explanations and examples tend to be overly complex, which does not give students a chance to learn the material properly. Whilst it makes excellent review material, the text is lacking in the ability to actually teach MATLAB.
22. I believe the text was not an adequate supplement to this course. The problems presented to us in the labs and tests were usually beyond the scope of the book. The text provides a good base to start understanding the functions being used for the assignments, but it fails to address important details that were required for a lot of the coursework. Another problem with the text is that two major functions that were used extensively in the course were not included--fsolve and nlinfit. There was also not enough information of computation of statistics.
23. I think this textbook has actually been very helpful. The book used great examples that really helped me to visualize what the paragraphs were describing. Additionally, I found the homework to be directly correlated to the readings, which really cemented what I was reading about in the chapters. I felt confident that I could almost always turn to the book to look something up and be able to find it, which is not usually the case.
24. The textbook, in my opinion, is not very good at all. The applications in this class are oftentimes far more complicated than the book explains. Furthermore, functions such as nlinfit and fsolve do not even appear in the textbook. I believe that a book that has harder examples, as well as more detailed information, would be much more beneficial. Student "Introduction to MATLAB for Engineers" by William J. Palm III is a good book to learn the basics of MATLAB as well as use advanced functions for problem solving. The book does a great job of going through and explaining the beginning functions and notation, such as algebra, calculus, plots (beginning and advanced), defining vectors, arrays and matrices, function files, logical expressions, and use of Mupad. The examples in the book were clear and to the point, and were easy enough so the user may sit at a computer and follow the examples in the text. The "Test Your Understanding" questions helped the user to solve the problems on his own to get the answers that were given. My only complaint about the text book is that some of the examples were vague. At times it will go through a problem, but I am left wondering where an equation was used or why something was typed and there was no clear explanation. In comparison to the class, I wish they had more information to talk about, such as the syms function, fsolve, and probability and statistics. But for the most part the book is good and helpful. On a scale of 1 to 10, it's about a 7.5.
25. The book was a good reference to learn the basics. It had helpful examples that were at a simple enough level to get a basic understanding of most of the material. However, it would have been nice to have more examples then were given in the text. The examples also didn't correlate very well to the types of problems that we were tested on. The function fsolve was not covered at all in the book. This was one of the major setbacks of this text book, because that was one of the most important tools in MATLAB that we learned this semester.
26. The text book is fairly informative on the topics it covers. It includes examples that better model the information you are given in word. However, some major topics were not covered very well. These include fsolve, second order differential equations, and nlinfit. fsolve and nlinfit were not in our text book and the explanations for the other two topics was confusing. I had to learn the second order differentials my own way as opposed to the book's way. I do think that this book is helpful on plotting and loops. It covers in detail the functions that go along with creating a plot and the ones that are used to gather data on the plot, such as fminbnd.
27. In my opinion, the textbook was helpful in gaining a basic understanding of MATLAB and important concepts; however, the actual content and functions focused on were quite different than those focused on in class. There was very little time spent on ode45, nlinfit, and fsolve. I would have liked to have a book that contained problems of about the same level, but that covered more of the material that the class focused on- particularly statistics.
28. I thought that most of the lab and test material was a lot more difficult than most of the problems in the book. In addition, the book did not provide any examples for some complicated problems we did in class such as higher order system of differential equations. Also, the book does not even have fsolve in it which is one of the greatest functions ever! While I do appreciate some of the books generic, straight forward problems, I would like to see some more complicated things. Student range of subjects, but for the most part this class focuses on a few big topics (fsolve, ode45, nlinfit, statistics, etc.) that are either not covered in the book at all or just barely touched upon. The book is very useful for someone that has little or no MATLAB experience because it covers such a wide range of material and helps with syntax.
29. The literature for the class, for the most part, did a fairly good job of explaining each function and giving me a good overview of MATLAB. There were a few problems with the book, however. Fsolve was not a documented function, nor were any statistical tests such as the ztest and ttest. Because these are functions well worth learning, it doesn't make too much sense that they're not in the book. This book is geared towards engineers, but I would have liked to see more problems relevant to chemical engineering. If I could see the practicality of the functions and information i was presented, I would be able to understand the capabilities of the functions.
30. Overall I thought the book presented the material very well, although it did not cover all the material that we talked about. One of the most important things it did not talk about was the 'fsolve' command. Since the book did not cover this, we did not have any examples to go off of for this other than what was given in class. Even though the book required good problem solving techniques to solve the problems, I thought the book should have been more involved with chemical engineering problems instead of just general problems. I think this would be advantageous because this would not only give us practice in problem solving, but help re-emphasize the concepts learned in our classes.
31. I enjoyed working out of the book you chose for this semester. There were many times where I wanted more examples to work than the book offered but searching for more examples using the "doc" option in the command window. This is my second time taking CHEN 3600 but my first semester was in VBA through Excel where this one is in MATLAB. Needless to say, it was pretty much a whole new class. In my first semester in CHEN 3370, the professor never assigned homework out of our book. I found it very difficult to learn with out having problems I could work through myself. I feel like I gained so much more knowledge this semester than the previous.
32. I like that the textbook explains the basic concepts well, however, it lacks depth. The homework problems are very much straightforward except a few. The book shows demonstrations on how to solve simple problems as examples, but it does not go into details on solving more complex problems such as the drain tank problem that is given to us by the instructor. The current book is good for learning the basics of MATLAB, but I would suggest using another book if it is more challenging on the problem solving part.
33. Good things about the text: One of characteristics which I appreciated about the CHEN 3600 textbook was the elementary way in which it explained important topics. The paragraphs in the textbook were very accessible and easy to understand. Through reading of the text, I could usually obtain a very substantial supplementary information whenever I was in need of it. Also a good feature of the text was that, at the end of the chapter, there were always a few problems that were detailed in scope, and required a decent amount of thinking to formulate a solution. The exam questions were typically more detailed than these end-of-chapter problems, but I thought that the lab assignments together with the homework assignments for the text were enough to prepare for the exams. Bad things about the text: 1) Insufficient example problems. There were not many examples in the book, and the ones that were present were usually of little help to understanding the course material. 2) Insufficient (and at times, non-existent) explanation of some of the more emphasized course material. Examples of this: NO coverage of 'fsolve', NO coverage of 'nlinfit', NO coverage of hypothesis testing, and poor coverage of anything statistics-related. The problem with the statistics chapter (Chapter 7) was mainly, in my opinion, attributable to insufficient example problems.
34. I thought the book did a good job of explaining concepts and applications of MATLAB. The example problems within the chapters were helpful in solving most of the homework problems. One thing I found lacking, however, is a description and in-depth discussion of 'fsolve'. Student I didn't like that it didn't provide more examples and in depth explanation of the more important functions, like fsolve and ode45. It didn't explain many of their different applications. It would have helped to do homework problems out of the book that revolved around fsolve.
35. I didn't like that it didn't provide more examples and in depth explanation of the more important functions, like fsolve and ode45. It didn't explain many of their different applications. It would have helped to do homework problems out of the book that revolved around fsolve. Student very helpful in the fact that it provided me with dumbed down examples to help me see how to use specific function. Being able to pair those simple examples with the doc help system in MATLAB helped me to learn how to use the functions in varying scenarios. What was frustrating with the book however was that I felt that the homework we did out of it, was much simpler than the problems we had on the test, so though it helped me figure out how to use the functions it did not prepare me for exams.
36. The textbook is limited because it doesn't covert the problems we have on the labs and the tests. Functions like "fsolve", "nlinfit" and many other useful functions mentioned in class by Dr. Ashurst are not covert. I feel like the problems solved in class are beyond what this book has to offer. I learned much more discussing with my classmates or Dr. Ashurst than by reading the book by myself. However, in Chapter 4 (Functions) they did a great job at describing the different types of functions we have use in this course.
37. The textbook for CHEN 3600 is helpful in learning the basics for MATLAB. The chapters thoroughly explain basic topics essential to learning the program and provide worked out examples. The end of chapter problems are useful in testing chapter understanding. Select problems have answers in the back of the book for self check.
38. The textbook as a whole is sufficient to teach the essentials for MATLAB. However, I feel that to be successful in this class, we need a much richer text in content. Consider the fact that important concepts such as FSOLVE and some of Statistical Analysis are not included in our text. Where do we turn in a situation when we are looking to find out more about these subject matters, not Palm. As a visual learner, I would personally enjoy more example problems and more step-by-step demonstrations on how to approach certain situations. Important functions such as ODE45 and NLINFIT can also use a much more in depth analysis than what is provided in the book. I have said this before and will say it again. In order for CHEN students to be successful, I believe we need our own section of COMP1200. Principles that should have been learned in that class are lacking as we enter important classes such as CHEN3600 and CHEN3650. If we are to have a much more profound knowledge of MATLAB as Chemical Engineers, where else should it come from than within our own department?