Literature for matlab course

This commented literature list is my personal view only. Other people might have a different opinion. It is based on my experience over the last years.

1 Matlab

The following two books are general introductions to matlab. They are not targeted at economists. Both cover all the basics one has to know and are good reference books. The help function in matlab is very good. But sometimes, it is better to read through a certain section of the book to get the broader picture. In my view, you should have one of these (or a similar) book.

1. William J. Palm III "A concise Introduction to Matlab". 420p.

   Most of the course will be based on this book. It is a book that covers the basics. On amazon it is between £20-£30.

2. Duane Hanselman & Bruce Littlefield "Mastering matlab 7" 840p.

   Similar, just bigger so covers more material. But is also more expansive. At the beginning it is actually better to have a small book b/c too much information is counter productive. In the long run, you might find some of the additional material useful.

2 Numerical Methods

2.1 Books

Our course is not about numerical methods. But ultimately that is who you will be doing with matlab.

1. Ken Judd "Numerical methods in Economics"

   This is the bible in the field. It gives all the theory & proofs. But it is quite difficult to understand. This is a book you need when you are approaching the research frontier. For beginners it is probably too difficult unless you are a very good in math. There are some codes on his web site. But hardly any in matlab.

2. Mario J. Miranda & Paul L. Fackler "Applied Computational Economics and Finance"

   This is a nice book. The first chapters are theory and the last chapters then apply this theory to tons of examples. All the examples and even more code is available on their web site for free. And everything is in matlab. Their codes are packed in "tool boxes". This makes it very easy to use since one has only to change a few parameters to adapt the it

to one's own problem. But it makes it somehow intransparent which is annoying when one wants to go further. Still, it is probably the best book for beginners.

3. Burkhard Heer & Alfred Maussner "Dynamic General Equilibrium Modelling"

   This book is a macroeconomics book. It is very student friendly. The nice thing about is that it explains the model as well as the numerical solution method. Thus this is very good for someone starting doing research in macro, in particular someone interested in heterogenous agent macro. There are some codes on their web sites. Some in matlab, more in Gauss and some in Fortran.

4. Jérôme Adda & Russell W. Cooper "Dynamic Economics"

   This is the shortest book. But it covers most standard material. and it is the only book that talks about econometric issues as well. There are only a few matlab codes on their web site.

5. Lars Ljunquvist & Tom Sargent " Recursive macroeconomic theory"

   Obviously, this is a macro textbook. But they have quite a few codes on their website.

6. Marimon and Scott: Methods for the Study of Dynamic Economies.

   This is a collection of essays and focuses on macro questions. You can access it for free via the library.

2.2   Courses

1. Fabrice Collard's web site http://fabcol.free.fr/index.php?page=notes

   This is an excellent source for numerical methods because he provides lecture notes and lots of matlab code. In essence he has taken parts of Judd's book made them student friendly and added matlab codes

2. Heer also ran a course with many matlab files. It is here https://pro.unibz.it/staff/bheer/Burkhard_Heer_

3. There are many more lecture notes online. Google e.g. Wouter DenHaan, Victor Rios-Rull, Tony Smith, Makato Nakajima etc. when you start working on something, look around and you'll find something that is close to what you do.