**References for Sage and for Doing Linear Algebra in Sage**

1. Look in eLearning for this course or  in my Sage notes (accessible from web.simmons.edu/~menzin which is my home page.)  
  
2. As you saw in the Getting Documentation and Code handout, you may follow the name of any function with one question mark to get documentation and with two question marks to get the code.  
   Of course, this does NOT give you a list of all the functions which Sage provides for linear algebra.  
  
3. a. A tutorial for Sage  is at <http://www.sagemath.org/doc/tutorial/>  
   You  can also download the tutorial in PDF format at  
<http://www.sagemath.org/pdf/SageTutorial.pdf>  
  
   b. A slightly older but still very useful Sage for Newbies book is available at <http://sage.math.washington.edu/home/tkosan/newbies_book/sage_for_newbies_v1.23.pdf> as a pdf, with an Open Office and a shorter version also available at <http://sage.math.washington.edu/home/tkosan/newbies_book/>  
  
   Both of these tutorials have instructions for installing Sage on your own computer, in case you don't want to use it on-line (at sagenb.org)  
  
4. a. A very short introduction to doing Linear Algebra in Sage is in the AIM Basic Sage Linear Algebra Tutorial at <http://sagenb.org/home/pub/55/>  
  
   b.  A book Sage for Linear Algebra, a supplement to a first course in Linear Algebra by Robert Beezer is available as a free PDF download at  
<http://linear.ups.edu/download/fcla-2.22-sage-4.7.1-preview.pdf>  
  
5. You can google - for example to find tutorials and documentation on determinants I used  
      determinant  Sage  
      Sage determinant documentation  
and I came up with such things as <http://uw.sagenb.org/home/pub/73/>  
  
6. The index for all Sage constructions (cookbooks) is found at  
<http://sagenb.org/doc/live/constructions/genindex.html>  
Those for linear algebra are at  
<http://sagenb.org/doc/live/constructions/linear_algebra.html>  
(after you sign in.)  
  
7. A good set of tutorials is found at <http://www.sagemath.org/help.html>  
There are also links there to the Reference Manual and a lot of other useful material.  For reasons which I don't understand, the link here to the tutorial (see item 3a above) goes to a place where you can buy the book from Amazon instead of going to the free on-line tutorial -- again see item 3a above.  
  
  
8. Sage's Reference Manual is at  
<http://www.sagemath.org/doc/reference/>  
but that still doesn't tell you all the functions which are available.  
  
9. A list of all the Sage modules is at  
<http://www.sagemath.org/doc/reference/py-modindex.html>  
The ones for linear algebra all begin sage.matrix.....  
  
    The sage.matrix docs is found at  
<http://www.sagemath.org/doc/reference/sage/matrix/docs.html#module-sage.matrix.docs>  and, as you might expect, it documents the various matrix modules.  
  
    WARNING: The modules have many functions which you will not be interested in.  But I find the reference manual pretty useful.