<div style="text-align: center">

Additional Material
for
Math 788F & Math 788G

</div>

There is a list of material to know for the course Math 788F at the URL

<div style="text-align: center">

`http://www.math.sc.edu/~filaseta/comps/math788Freviewlist.ps`

</div>

Some of the material listed there was done this past year in Math 788G. You should know all of that material in addition to what is listed below. In the list of material for Math 788F at the URL above, some items include the word "omit" next to them. You may still omit those items from your study unless specified otherwise below. The material below refers to the current notes on the web page for Math 788G (note the "G"). Recall the password is "Math788Notes" (note there is no "G").

- Know the statement and proof of Perron's theorem (Theorem 3.1.1) given *only* Lemma 3.1.3. You should be able to state Lemma 3.1.2 and prove it to whatever extent you make use of it.

- Know how to prove Theorem 7.2.2 on Bernoulli polynomials given the lemmas.

- Know how to prove $x^n + g(x)$ is irreducible if I give you a specific $g(x)$. I may give you some additional information (e.g., how $g(x)\tilde{g}(x) - x^{\deg g}$ factors and possibly some roots of the factors). Also, I may ask you simply to address whether $x^n + g(x)$ has a reciprocal factor or whether the non-reciprocal part of $x^n + g(x)$ is reducible. You will not be asked to prove the lemmas, but also they may not be given to you. You can use them as if they are common knowledge. During the oral part of the exam, you may be asked to elaborate on what this common knowledge is (but not the proofs).

- Know the proof of Theorem 8.5.1 given the lemma. It's long, so you should be able to give me part of the proof if I ask about only one aspect of it.