MAC 2313 Review 1 Calculus III

I. Multivariable functions
A) Interpret multivariable functions in applications given as a table, symbols or graph
B) Sketch/identify contour curves and cross sections.
C) Identify and find equations for linear functions from a table, points, or contour diagram.
D) Identify certain surfaces from graph or equation: spheres, paraboloids, cylinders(not just circular), saddle, and planes

II. Algebra of vectors
A) Add, subtract, multiply by scalars
B) Find and use unit vectors
C) Calculate and know the properties of dot products and cross products
D) Find the projection of one vector onto another and use that to resolve a vector into vectors parallel and perpendicular to a given vector.
E) Use vectors to solve applications
F) Use vectors to find areas, angles, equations of planes.

Suggested problems for review:

Pages 710 – 713: 1,3,9*,11,15,18,19,20,27,29,37*abc,39*
Pages 752 – 754: 1-6, 7,9,13,15,17,21,22*,23*,24*,25,26*,27,29,31,33*,38,39a-d,47*,49,51,52*,53,59*
Sec 12.1: 24,25
Sec 12.3 9*
Sec 12.4: 15*,16*
Sec 13.2: 15*

And the extra problems worksheet

Note: This list assumes you've already completed the homework assignments given in class.