

**ESR 320**  
**ENVIRONMENTAL SYSTEMS I**  
**THINGS TO KNOW FOR THE FINAL EXAM**

As before, OPEN NOTES/READINGS. Don't memorize details but know exactly where to find them.

Simple Calculations you should be ready for:

Be able to calculate the value of the Coriolis Factor,  $f = 2\omega \sin \Phi$  for a given latitude  $\Phi$ . ( $\omega$ , the frequency of the rotation of the earth was discussed in class; see notes for value and also shown in the Practice Problems on the website.)

Be able to calculate the magnitude of the Coriolis acceleration. (See practice probs)

Be able to calculate the acceleration due to a pressure gradient (See practice probs)

Be able to balance pressure acceleration with Coriolis Acceleration (See practice probs)

Other (non-calculation) things to know:

Review once more heat budget concepts and some of the basic hydrology

Know the main factors that influence wind patterns on the surface of the earth.

Know or be able to quickly access the vocabulary associated with everything we have been covering since the last midterm.

Go back and look at previous midterm exam review, especially Midterm 2. If you see things that were not actually covered on the exam, those are good targets for me to add into the final.