This review sheet is intended to cover everything that could be on the exam; however, it is possible that I will have accidentally left something off. You are still responsible for everything in the chapters covered except anything that I explicitly say you are not responsible for. Therefore, if I left something off of this sheet, it can still be on the exam. There will be no multiple-choice questions. Most of the questions will be like the ones in the homework assignments, and possibly a few definition questions, but I am more likely to ask questions that make you use the definitions rather than recite them. I will probably ask one of the questions from the book at the end of the chapters.

The review session will be at a time and to be determined, but probably Sunday 2/14. Note, except for last time, most times the course was offered, it was MWF or a directed study which was the equivalent of MWF course. So, they had less material. Thus, some of the material for this exam was on the old Test 2.

Chapter 1: What is development? How do we catagorize countries into "low-income", "lower-middle-income", "upper-middle-income", and "high-income" countries? What do the terms, *transitional economy, third world, North-South*, and *emerging economies* mean? Why shouldn't we make generalizations about developing countries?

Chapter 2: What is meant by **PPP** and how do we use it to calculate **real GNI per capita**? How does **GNI** and **GDP** differ? What is **NEW**? What is the **HDI**? I will provide you the following numbers: Maximum income per capita is \$75,000, minimum income per capita of 20, maximum life expectancy is 85, minimum life expectancy of 20, maximum mean years of schooling is 15, and maximum expected years of schooling is 18. (Source: http://hdr.undp.org/sites/default/files/hdr2018 technical notes.pdf, Page 2) Why did we create it? I.e., why not use GNI as a measure of how well off a country is? Be able to calculate it. For the **MDGs**, be able to come up with a method to achieve that goal and why it is a goal. In general, which are we close to achieving? *I will not ask you to list them*.

Chapter 3: What is required for economic **growth**? Why do small changes in rates of growth make a big difference to the doubling time? Be able to calculate **present value**. Set up a table with each column being a different year. Then convert all numbers to PV by using the formula $PV = FV_n/(1+i)^n$ where n is the number of years in the future the payment is. Why do we need **factor accumulation**, **increased efficiency**, **savings**, and **technology change**? Know why the production function diagram is drawn as we drew it. For the Solow model, understand that it assumes the items on **Page 65** and the **growth of TFP** equation on Page 68. Be able to calculate the **TFP**. For the **Characteristics of Rapidly Growing Countries**, know why those characteristics help the economies grow faster. Except for #6, Favorable Geography, know what the government can do to fix the problem. What happens to the proportion of different types of production economy as it grows? I will not ask you to list them.

Chapter 16 only Pages 583 - 603: Know what is meant by diminishing returns, labor surplus, underemployment, disguised unemployment, marginal product of labor (MPL), and average product of labor (APL). Be able to do the two sector model of labor supply/demand. Note that I added a second vertical axis and the distance from that axis, leftward to the intersection is the amount of labor in the rural farming. The bottom graph on Page 596 is not easy to use and not necessary if you have the second vertical axis. For increases in the population, you should be moving the right-hand axis. Why are the workers paid MPL or APL depending on where they work? Be able to move the diagram around both with and without the subsistence wage. Hint: for the APL_A , it is backwards because the axis is reversed. So, an increase is up/left.

Chapter 5: What is meant by th **big push** and what are its advantages and disadvantages? How do **backwards linkages** help an economy? What are the strengths and weaknesses of using **Pareto efficiency** (and **Pareto optimality**) and **MSB = MSC** to determine if an action is a good on? What are **market failures**? Understand why the 10 items in the **Washington Consensus** are important for economic development. Understand why some economists feel that **liberalization of FDI** may not be good. Why is the transition from a **command economy** to a market economy be difficult? Understand why we need the **5 Key Elements for a Market to Work Well** on Page 149. What are the advantages and disadvantages of **hard governments** and **soft governments**?

Chapter 6 until Page 181: What is meant by **frequency distribution**? Be able to draw a **Lorenz Curve** and estimate the **Gini Coefficient**. Understand what **deciles** and **quintiles** are. What is the problem of too large or too small Gini Coefficient? What is the **Kuznets Curve**? Why might it take that shape?

Non-graded Homework #3A to be reviewed with Homework #3.

- 1) (10 points) One of the 5 keys to have a market work well is that firms need to maximize profits. Why is that important?
- 2) (20 points) What is the difference between a *soft government* and a *hard government*? What is the potential danger with a hard government? Explain your logic.
- 3) (35 points) Suppose the table below shows the income for each of the quintiles. Draw the Lorenz Curve. Show all calculations. What is your estimate of the Gini Coefficient? Explain how you reached that conclusion.

Quintile	1 st	$2^{\rm nd}$	$3^{\rm rd}$	$4^{ ext{th}}$	5 th
Share of income	10%	15%	20%	25%	?

- 4) (15 points) Why is too large a Gini Coefficient bad for economic growth? Why is too small a Gini Coefficient bad for economic growth?
- 5) (20 points) Draw the Kuznets Curve. Explain why it takes that shape.