## Econ 331 - Study Guide for Final Exam:

Chapter 1:

- three basic models describing the economy (short description of each);
- very long run growth (income growth through time, AD-AS diagram, the shape of the AS, which curve/curves determine the output and prices, inflation and the MS); - short run model (AD-AS diagram, the shape of the AS, which curve/curves determine the output and prices);
- medium run model (AD-AS diagram, how the short-run AS becomes the long-run AS);
- business cycles (the graph with actual GDP and potential GDP, recessions, recoveries, peaks, troughs);
- output gap;

Chapter 2:

- definition of GDP;
- factors of production; factor payments; the implicit expression for a production
function;
- Net Domestic Product (definition);
- definition of the National Income through Net Domestic Product and business taxes;
- total demand for domestic output and the components of the total demand (C, I, G, NX);
- major simplification: National Income $\equiv$ GDP;
- disposable income (formula);
- the expression: $\mathrm{S}-\mathrm{I}=(\mathrm{G}+\mathrm{TR}-\mathrm{TA})+\mathrm{NX}$ (know all the components, know how
to handle the components: all the questions from HW1);
- ( $\mathrm{G}+\mathrm{TR}-\mathrm{TA}$ ) as the government budget deficit;
- "final" goods versus "intermediate" goods (know the difference);
- problems in measuring GDP;
- nominal variables versus real variables (formula for inflation, relation between the current prices and previous period prices, converting nominal variables into real variables, different price indexes);
- unemployment rate (the unemployed, the employed);
- real interest rates and nominal interest rates;
- exchange rates;

Chapter 5:

- definition of AD (the slope);
- definition of AS (the slope);
- different outcomes of the AD-shift (when AS has different slopes);
- the classical AS in the long-run;
- the Keynesian AS in the short-run;
- frictional unemployment and full employment;
- AS and the price-adjustment mechanism;
- the speed of adjustment ( $\lambda$ : slow adjustment versus fast adjustment);
- AD and the real Money Supply (explanation of the slope of the AD);
- AD policy under the classical assumptions and the Keynesian assumptions;
- supply-side economics (AS growth versus AD growth);

Chapter 6:

- the original Phillips curve (wage growth rate versus unemployment rate, formula for the curve - I expect you to be fluent with the formula);
- the unemployment gap; trade-off between the wage rates changes and unemployment rate changes;
- expected inflation and its inclusion into the Phillips curve;
- long-run and short-run Phillips curves;
- surprised versus predictable shifts in money growth (which ones produces results and which ones do not and why?);
- stickiness of wages: reasons the labor force adjusts slowly;
- price stickiness (Okun's law - translation of output into employment; the link between prices and costs);
- know well and understand well the connection between the output-unemployment
translation, prices-costs translation, and the explicit expression for AS curve;
- supply shocks (adverse and positive shocks);

Chapter 7:

- the largest cost of unemployment;
- the major cost of inflation;
- five characteristics of unemployment;
- the unemployment pool (what is it; the reasons workers enter the pool, the reasons workers exit the pool);
- frictional, full, and cyclical unemployment - the relationship between;
- labor market turnover;
- a spell of unemployment;
- the duration of unemployment;
- "jobless recovery" - what does it mean?
- factors affecting the duration of unemployment;
- the frequency of unemployment;
- unemployment benefits (the replacement ratio, reservation wage, employment stability);
- expected versus unexpected inflation;
- expected inflation (costs - of holding cash, "shoe-leather", menu);
- unexpected inflation and borrowing;
- inflation and redistribution of wealth, income, changes in tax structure;
- inflation and indexation

Chapter 8:

- the "who" of a policy (fiscal versus monetary);
- the "what" of a policy (monetary: OMO, FFR, AD-side of the economy)
- the "why" of a policy (long versus short run);
- the "when" of a policy;
- the "how" of a policy (example of a monetary policy: T-bills, banks reserves, MS);
- how a policy works (example of a monetary policy);
- the development of a policy (the works of a policy in reverse);

Chapter 9:

- $\quad \mathrm{AD}=\mathrm{C}+\mathrm{I}+\mathrm{G}+\mathrm{NX}$
- Unplanned inventory ( $\mathrm{UI}=\mathrm{Y}-\mathrm{AD}, \mathrm{UI}>0, \mathrm{UI}<0$ );
- simple economy (no G, no NX), the consumption function;
- marginal propensity to consume, marginal propensity to save;
- budget constraint: $\mathrm{Y}=\mathrm{C}+\mathrm{S}$;
- disposable income: YD = Y - TA + TR;
- $\overline{\mathrm{A}}$ (and all the components of it);
- the expression for AD;
- the AD function and its graph (the vertical intercept; the slope), the current equilibrium;
- the multiplier effect (explanation, how to calculate the multiplier effect);
- how the multiplier effect changes if MPC changes;
- graphical representation of the multiplier effect;
- the consumption function with taxes and transfer payments;
- the updated AD function: the new expression and the graph for the AD function (different slope, why?);
- taxes and the multiplier (changes in the multiplier due to changes in tax rates);
- fiscal policy and its effect on AD function (graph) and the multiplier effect;
- difference between increase G and TR (different impact on Y - why?);
- know how to do all the questions from HW2;
- budget surplus versus budget deficit and full-employment budget surplus;

Chapter 10:

- investment spending function (the expression, all the components), what does it tell us?
- the slope of the function;
- derivation of the IS curve (four (4) graphs);
- what does the slope of the IS depend on?
- shifting the IS curve (to the right, to the left);
- the money market (the demand for liquidity function with all its components, its slope; the real supply of money and its slope);
- derivation of the LM curve (two (2) graphs);
- shifting LM (to the left, to the right);
- the complete IS-LM diagram;
- what is LM? what is IS?
- the equilibrium point in the IS-LM framework - what happens to the equilibrium when IS shifts? when LM shifts?
- derivation of the AD curve (two graphs);
- shifting of the AD curve (to the right, to the left);
- know how to do all the questions from HW3;

Chapter 11:

- monetary policy - which market/s it affects, the major tool used;
- expansionary monetary policy (explanation, IS-LM framework shift);
- contractionary monetary policy (explanation, IS-LM framework shift);
- transmission mechanism;
- the liquidity trap (the IS-LM framework showing the specific condition of the LM curve, explanation, other type of the liquidity trap);
- unorthodox monetary policy (latest financial crisis);
- the classical case for the LM curve (why we call it "classical case");
- fiscal policy: expansionary, contractionary (explanations, graphs);
- crowding out (explanation, the IS-LM framework);
- two extreme cases for the crowding out (flat LM, vertical LM - explanations, graphs);
- accommodating monetary policy (when, what does it mean?).

Chapter 12:

- balance of payments (what is it?);
- the current account and the capital account;
- a deficit item versus a surplus item;
- exchange rate (definition);
- fixed exchange rate;
- intervention (with an example);
- flexible exchange rate (clean versus dirty);
- devaluation of a currency;
- appreciation versus depreciation of a currency;

Chapter 16:

- monetary base (definition, why do we call it the High-powered money);
- fractional reserve system (required reserves, excess reserves - how to calculate each);
- how a central bank intervention can affect the monetary base;
- open-market operations as the tool to affect the money supply;
- discount lending as the tool to affect the money supply;
- required reserve ratios as the tool to affect the money supply;
- the money multiplier process;
- the "targeted" variable;
- W. Poole article.


## Know how to do all the questions from HW1, HW2, HW3.

