## ECO 305: Intermediate Macroeconomics Your Name: \_\_\_\_\_\_ In-class Exercise: Consumption / Leisure Model

**Directions:** Work in groups of up to four people and answer the following questions. All papers will be collected, but only one member's paper will be randomly selected and graded and all members of the group will receive the same grade.

By signing below, you agree that the following work represents the efforts of everyone in the group, and you are willing to accept as your own grade for the group project the grade earned from this representation of your group's work.

Signature Group Member 1	Print Name	Date
Signature Group Member 2	Print Name	Date
Signature Group Member 3	Print Name	Date
Signature Group Member 4	Print Name	Date

- 1. Suppose there is an increase in labor demand which causes an increase in the wage.
  - (a) Describe and illustrate the impact on consumers' optimal choices for consumption, leisure, and labor supply. What is the impact on consumer welfare?

(b) Describe intuitively the income and substitution effects on consumption and leisure.

(c) Describe and illustrate the income and substitution effects on consumption and leisure.

- 2. Recall that leisure is defined as any time that is not spent supplying labor for a wage. Suppose the government cuts programs that assist parents with childcare services while they are working.
  - (a) Describe how this will likely affect consumers preferences for leisure versus consumption. Graphing only an indifference curve for consumption and leisure (not the budget constraints), demonstrate the effect that this policy is likely to have on the indifference curves. Hint: Your new and old indifference curves may cross, this is OK when you recognize that each indifference curve is for a different set of preferences, and that they do not both apply at the same time.

(b) Introduce your budget constraint, and describe and illustrate the impact on the optimal choices for consumption, leisure, and labor supply.

3. Suppose that instead of collecting a lump-sum tax, the government instead collects a tax on dividend income. Consumer's dividend income is given by  $(1 - \tau_{\pi})\pi$ , where  $\pi$  is are real dividends,  $\tau_{\pi} \in [0, 1)$  is the tax rate on dividend income, commonly known as a capital gains tax. Describe and illustrate the impact of an increase in the capital gains tax on consumption, leisure, and labor supply.