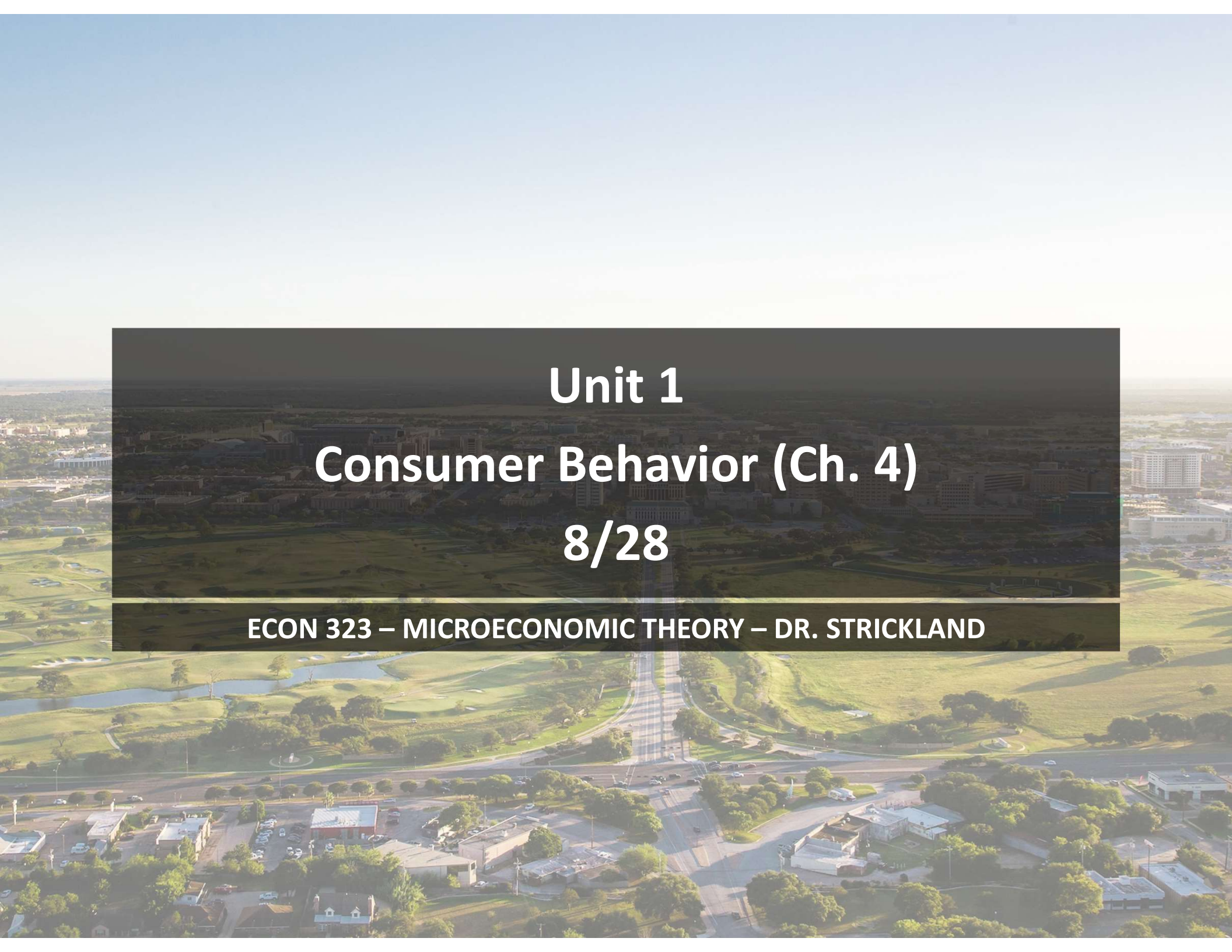
Announcements

Zach's (TA) office hours have changed

- Mondays and Wednesdays **11 AM – 12:30 PM** in WCSS 267

Register for iClicker by next week!

- See the "Register with iClicker course" page in Canvas



Unit 1
Consumer Behavior (Ch. 4)
8/28

ECON 323 – MICROECONOMIC THEORY – DR. STRICKLAND

Introduction

How do consumers make choices?

- Consumers **optimize** utility given scarce resources
- Basis for **demand**

The Consumer's Preferences and the Concept of Utility

Consumer preference assumptions:

- Completeness and rankability
- More is better than less ("monotonicity")
- Transitivity
- Variety

The Consumer's Preferences and the Concept of Utility

Utility: a measure of how **satisfied** (or happy) consumers are

Utility function: describes the relationship between consumption and consumer well-being

$y = f(x) \Rightarrow U = U(x, y)$

y: OUTPUT; f: INPUT; U: UTILITY; x: GOOD X; y: GOOD y

ex. $U = U(B, T) = B^{0.8} T^{0.2}$

B: BOOKS; T: TV SHOWS

"FUNCTIONAL FORM"

"COBB-DOUGLAS": $U = X^a y^b$, $a > 0$, $b > 0$

$U(2,1) = (2)^{0.8}(1)^{0.2} = 1.74$

$U(1,2) = (1)^{0.8}(2)^{0.2} = 1.15$

The Consumer's Preferences and the Concept of Utility

Important: utility is **ordinal**

- Only the **ranking** matters
- Cannot make interpersonal comparisons

ex 1: $u(\text{BOOKS}) = 20$ $\quad u(\text{TV SHOWS}) = 10$

$\Rightarrow$ BOOKS $\succ$ TV SHOWS

↳ (preferred)

ex 2: $u(B) = 40$ $\quad u(T) = 20$

$\Rightarrow B \succ T$

The Consumer's Preferences and the Concept of Utility

(MU)

Marginal utility: the **extra** utility a consumer receives from an **additional** unit of a good or service.

$$U(B,T) = B^{0.8} T^{0.2}$$

MU OF BOOKS

$$MU_B = \frac{\Delta U(B,T)}{\Delta B}$$

CHANGE IN UTILITY WHEN READ 1 MORE BOOK

MU OF TV

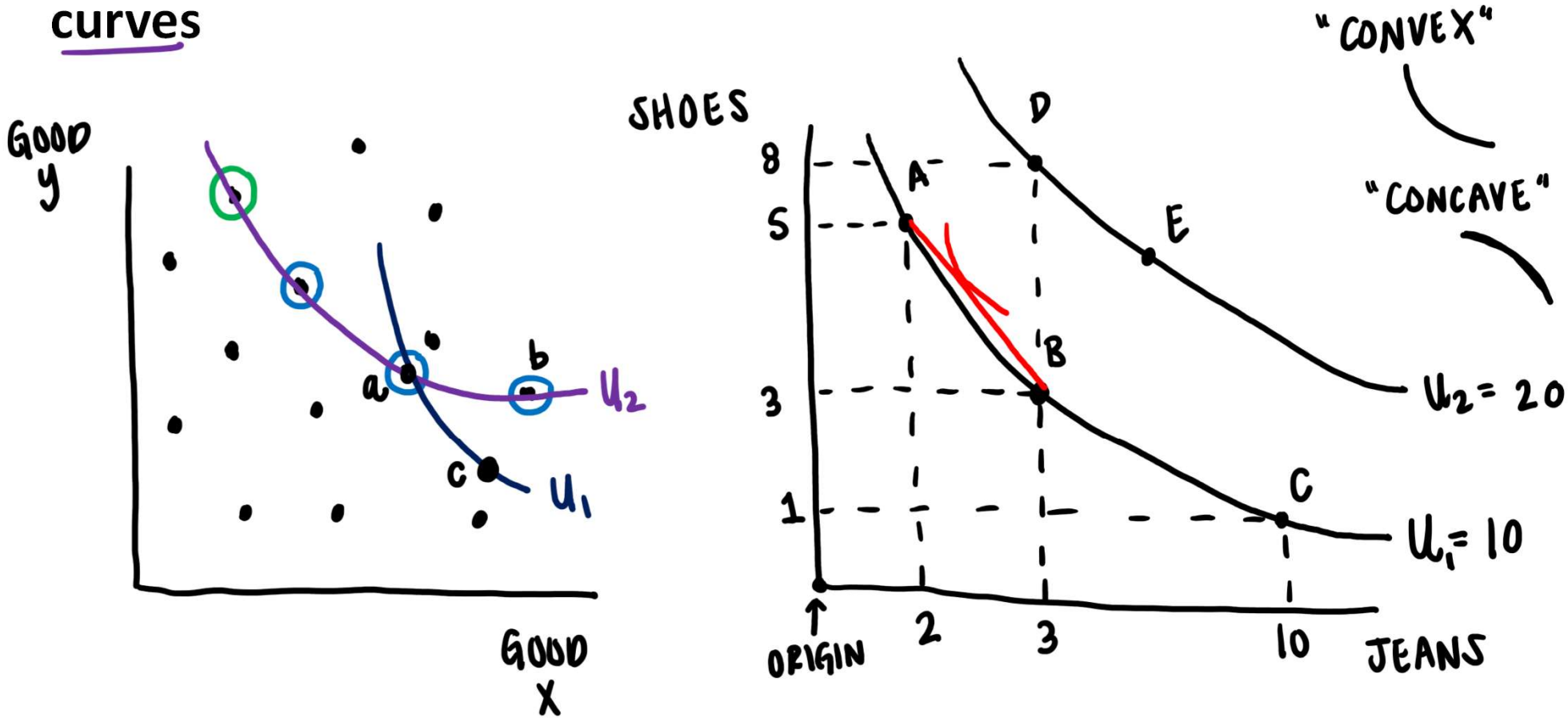
$$MU_T = \frac{\Delta U(B,T)}{\Delta T}$$

CHANGE IN UTILITY WHEN WATCH 1 MORE SHOW

Indifference Curves

PIC: INDIFF CURVE ASSOCIATED W/ COBB DOUGLAS UTIL. FUNCTION

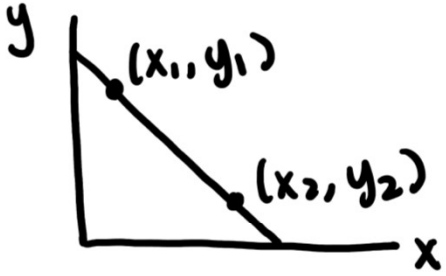
We represent preferences and utility graphically with **indifference curves**



Marginal Rate of Substitution

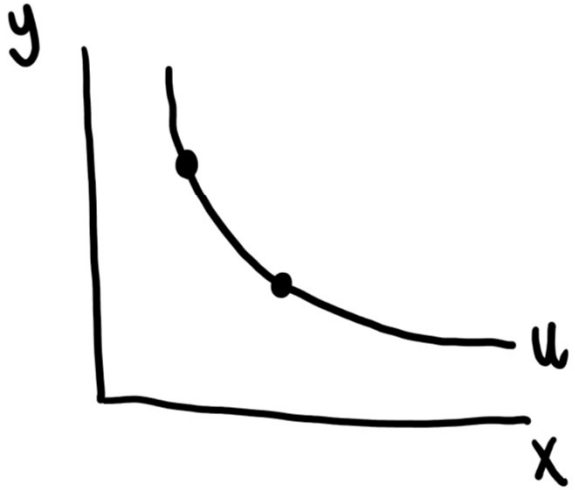
Indifference curves describe tradeoffs

- captured by the slope
  - ↙ RATE OF CHANGE



$$\text{slope} = \frac{\text{RISE}}{\text{RUN}} = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$$

Marginal rate of substitution: the *negative* of the slope of the IC



$$MRS_{xy} = -\left(\frac{\Delta y}{\Delta x}\right)$$

RATE AT WHICH CONSUMER WILL TRADE X AND Y WHILE KEEPING U CONSTANT

* TRADING 1 UNIT OF X AND MRS_{xy} UNITS OF Y WHILE KEEPING U CONSTANT