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AREC/ECON 346
ECONOMICS OF OUTDOOR RECREATION

COURSE OBJECTIVES: The techniques of Benefit Cost Analysis, recreation valuation &
multiplier analysis of tourism are taught & applied to recreation management issues (congestion,
fees/pricing, evaluating investments in campgrounds and facilities, etc.) and to evaluation of
natural resource allocations involving recreation resources (forests, water, etc.)

REQUIRED TEXT: RECREATION ECONOMIC DECISIONS (2nd ed) by Loomis & Walsh.
A limited # of textbooks are at the CSU Bookstore; after that it will be bound copies of the
scanned book.

GRADING: There will be at least 2 mid-terms (worth 60%) and a comprehensive final (worth
30%). There will be at least 5 short problem sets (worth 15% total). The tests will cover both
lecture and readings. The points earned on each test and homework assignment are recorded,
rather than a letter grade. The sum of all points are converted to a grade at the end. Generally, I
follow the 90%=A, 80%-89=B, 65%-79=C, 64%-50=D, although I do give pluses and minuses
for those on the borderline. Tentative Date of 1st Mid Term is Friday October 7th, updates will be
announced in class so it pays to attend class. Second Mid term to be announced, but may be Wed
November 16th. Please plan to be here those days.

Classroom policies: Due to the distractions that ringing cell phones (as well as students then
getting up & walking in & out in the middle of class), texting, surfing the web on laptops, etc.,
onece class has started please turn OFF your cell phones, and put them in your pack. It is
unlikely anything will occur during our 50 minutes in class that can’t wait until after class.
My experience last semester is that students who monitored their phones, didn’t perform very
well on the exams—multitasking is not a good idea in a 50 minute class.
On behalf of myself and the other students in class, thank you very much.

COURSE OUTLINE
I. AN OVERVIEW OF RECREATION RESOURCE POLICY ISSUES
   A. MANAGEMENT ISSUES
      1. Optimum Use Levels: Congestion and Use Rationing
      2. Funding: Budgets; Pricing for Revenue and as a Management Tool
      3. Conflicts between visitors:(Hikers, Horses, Mtn Bikes) or (Motor-nonmotorized)
      4. The Need for Evaluating Investments in Facilities

   B. ALLOCATION OF NATURAL RESOURCES BETWEEN COMPETING USES
      1. Water Diversions versus Fisheries and Rafting
2. External Threats to National Parks: Hydropower vs Fishing & Rafting
4. Mining versus Recreation

READINGS: Chapter 1

C. FUNDING OUTDOOR RECREATION (Budgets, Fees, Taxes)

D. RECREATION PRODUCTION PROCESS:
   1. Agencies & Private Landowners Roles
   2. Visitors Roles
   3. Outputs

READINGS: Chapters 2 and 3

II. SOME TOOLS FOR ECONOMIC ANALYSIS OF RECREATION AND TOURISM
A. MULTIPLE OBJECTIVES: Financial vs Economic Analysis; National Economic Efficiency and Regional Development

READINGS: Chapter 19, pages 369 to 371; Chapter 20 pages 407 to 410;

B. SINGLE OBJECTIVE
   1. Regional Economic Analysis: Tourism, Visitor Expenditures, Multipliers, Input-Output Models, Recreation Related Income and Employment

READINGS: Chapters 4 and 14

HOMEWORK ON MULTIPLIERS
First Mid-Term Exam (tentatively October 7th, but will be announced in class ahead of time)

2. Benefit Cost Analysis
   a. Definition, use in determining project size, mix of activities
   b. Theory of Economic Valuation: Consumer and Producer Surplus (WTP)

READINGS: Chapter 19, pages 369-378; Chapter 5;

   c. Demand Functions to estimate visitor use and benefits
READINGS: Chapters 6 and 7 (up to page 104)

HOMEWORK: Calculating Value of Water to Farmers vs Rafters

   d. Empirical Measurement of Economic Values
      - marketed resources: Price, Total Revenue, Producer Surplus
      - recreation and other non-marketed resources: Consumer Surplus
   e. Valuation methods
      i. Hedonic Property Method
      ii. Travel Cost (Readings: Chapter 9)
         Case study of hydropower vs fisheries

HOMEWORK: Using TCM Models to estimate benefits.
   iii. Contingent Valuation Methods (Readings: Chapter 10)
         Case study of Poudre River
   iv. Unit Day Values and Benefit-Transfer

READINGS: Chapter 11

HOMEWORK: Benefit Transfer Exercise
f. Forecasting Future Recreation Use Over Time: Predictors and Techniques
READINGS: Chapter 13.
HOMEWORK: Recreation Use Forecasting
Approximate Timing of Second Mid-Term Exam Wed Nov 16th but will be announced in class

g. Discounting Benefits and Costs over time: Concepts & Procedures
READINGS: Chapter 19: Pages 379 to 389; Chapter 20: pages 391-399
HOMEWORK: Calculating Present Values & BCR of Benefits and Costs

h. Steps in Performing a Comprehensive Benefit-Cost Analysis
READINGS: Chapter 20: Pages 399 to 402.

III. APPLICATION OF TOOLS TO RECREATION RESOURCE ISSUES

A. RECREATION MANAGEMENT ISSUES
   1. Optimum Use Levels: Congestion, Crowding and Use Rationing
      a. Ski Areas: Optimal Capacity and Lift Line Waits
      b. Wilderness Areas: Optimal Capacity at Indian Peaks
READINGS: Chapter 7, pages 104-109.

   2. Pricing for Revenue and as a Management Tool:
      a. Revenue Self-Sufficiency for visitor management costs
      b. Peak load pricing of holiday times and popular sites:
         ski area and campground examples
READINGS: Chapters 17 and 18.

B. ADDITIONAL EXAMPLES OF ALLOCATION OF NATURAL RESOURCES BETWEEN COMPETING USES
   2. Grand Canyon National Park: Recreation Use & Non-Use Values vs Hydropower

FINAL: As scheduled by CSU in our regular classroom;
Looks like Friday December 16th 7:30am-9:30am. Please be prepared to be there.