ECON 260A: "Natural Resource Economics"

Professors: Christopher Costello and Andrew Plantinga

Office Hours:

Costello: M 1:00-2:00 or by appointment (4410 Bren Hall, 893-5802, costello@bren.ucsb.edu) Plantinga: W 1:00-2:00 or by appointment (3424 Bren Hall, 893-2788, plantinga@bren.ucsb.edu)

Grading:

- Paper (50%)
 - One-page pre-proposal due Oct. 16 in class
 - Research paper with results/data (December 12, 5:00 pm)
 - o 8 minute presentation (without media) Dec. 4 & 6.
- In-class presentations and participation (50%)
 - Homeworks (total of 4 "Homework Challenges" assigned)
 - o Random student presents solution on due it is due
 - o In-class participation
 - Paper presentations (~ 1 paper per student)

Schedule

Module #1: Tools

Sep 27 (R):

- Plantinga & Costello: Introduction, Syllabus, etc.
- Plantinga: The mechanics of Hamiltonians

Oct 2 (T):

Plantinga: The mechanics of Hamiltonians, cont'd

Oct 4 (R):

- Costello: The mechanics of discrete-time dynamic programming
- Homework Challenge #1 Assigned (Costello)

Module #2: Renewable Resource Economics

Oct 9 (T):

• Plantinga: Basic forestry models, with extensions

Oct 11 (R):

- Student Paper Presentations #1
 - o <u>Paper #1:</u> Berck 1981
 - o <u>Paper #2:</u> Taylor, 2011

Oct 16 (T):

- One page proposal for paper due in class today
- Costello: Open Access
- Costello: Basic renewable resource optimization models

Oct 18 (R):

- Homework Challenge #1 Due
- Student Paper Presentations #2
 - o Paper #1: Heintzleman, Salant, Schott. 2009.

Module #3: Non-renewable Resource Economics

Oct 23 (T):

- Plantinga: Nonrenewable resource models
- Homework Challenge #2 Assigned (Plantinga)

Oct 25 (R):

- Student Paper Presentations #3
 - o Paper #1: Costello et al. 2015
 - o Paper #2: Anderson et al. 2014

Module #4: Space & Uncertainty

Oct 30 (T):

- Costello: Spatial resource economics
- Homework Challenge #2 Due
- Homework Challenge #3 Assigned (Costello)

Nov 1 (R):

Plantinga: Quasi option value and real options

Nov 6 (T):

• Costello: Dynamic optimization under uncertainty

Nov 8 (R):

Costello: Dynamic optimization under uncertainty, cont'd

Nov 13 (T):

- Homework Challenge #3 Due
- Student Paper Presentations #4
 - o Paper #1: Weitzman, 2002

Module #5: Empirical Resource Economics

Nov 15 (T):

- Homework Challenge #4 Assigned (Plantinga)
- Empirical Resource Economics (Plantinga)

Nov 20 (R):

- Student Paper Presentations #5
 - o Paper #1: Kelly & Kolstad, 1999 (JEDC)
 - o Paper #2: Lemoine & Traeger, 2014 (AEJ Policy)

Nov 27 (T):

- Homework Challenge #4 Due
- Student Paper Presentations #5
 - o Paper #1: Huang and Smith, 2014
 - o Paper #2: Bakkensen and Barrage, 2017

Nov 29 (R):

- Student Paper Presentation #6
 - o Paper #1: McGough et al. 2009.
 - o Paper #2: Fischer & Heutel, 2013 (Annual Review Res. Econ)

Dec 4 (T):

• Students: Egg-timer presentations (no media allowed)

Dec 6 (R):

• Students: Egg-timer presentations (no media allowed)