

Study Sheet for Midterm Exam,
Economics 145, Economics of Ocean Resources
Spring, 2019

Exam Notes and Lecture Material for Which You Are Held Responsible

- Last date of lecture for midterm material: Wednesday, February 13, 2019.
- Midterm material through (including) Section 4. of Syllabus, “Regulation and Public Policy within a Bioeconomics and Property Rights Framework.”
- Disclaimer: This study guide includes everything I could think of, but if something inadvertently appears on the midterm that does not exactly correspond to this lecture guide, please do not come to me!
- Disclaimer: Also, the posted midterm exam is suggestive and to give you a sense of how this year’s exam will be structured, but this year’s midterm will not exactly correspond.
- You are not responsible for empirical material from case studies or empirical illustrations in the lectures.
- Know all the various diagrams/figures to illustrate the economics of your answers.
- You do not have to know the mathematical derivations for formulae for the logistic growth function, yield-effort curve (also known as the Schaefer model), open-access bioeconomic model (also known as the Gordon model), or optimum bioeconomic model (also known as the sole owner model).
- You do have to know the mathematical derivation for the resource stock externality expressed as the difference between the average product of effort and the marginal product of effort. The original source reading in the Readings section on TED.
- You do have to know diagrams and the logic on critical depensation, depensation, and pure compensation growth models, the logistic growth function, yield-effort curve (also known as the Schaefer model), open-access bioeconomic model (also known as the Gordon model), or optimum bioeconomic model (also known as the sole owner model). These diagrams are in Flaaten and pointed out in the guide to Flaaten below.
- You need to know the Allee effect, Allee threshold, compensatory growth, depensatory growth.
- Using the bioeconomic framework, you should be able to analyze a word problem and required policy for an open access fishery to move to an economically optimal fishery. You should know four basic diagrams to tell this story: (1) relationship between net growth function and resource stock for a pure compensation growth model, Figure 2.1. of Flaaten; (2) yield-effort curve, Figure 2.3. of Flaaten; (3) bioeconomic model in terms of total revenue, total cost, and economic rent and various policies that can be discussed using this model, including Figures 3.1., 3.2., and 5.1. of Flaaten; and (4), bioeconomic model in terms of average revenue, average and marginal cost, and price and various policies that can be discussed using this model, including Figures 3.1., 3.2., and 5.1. of Flaaten.
- You need to know the Law of the Sea figure showing the Territorial Sea, Exclusive Economic Zone, High Seas, Area (Deep Seabed beyond continental shelf)