

SPACE ECONOMICS

IAFF 6158-010 (CRN 12131)

Syllabus: Spring Semester, 2021

Thursday 5:10 to 7:00 PM; On-Line Zoom

Prof. Henry R. Hertzfeld

Office: 1957 E Street, NW, Suite #403

Tel: (202) 994-6628

E-mail: hrh@gwu.edu

Office Hours: By appointment through email (please provide suggested times available)

Date	Topic
January 14	Introduction to Space Economics Review of topics for course and assignments. Overview: US and international space expenditures. Economics in US space policy
January 21	The problems of definition and measurement Macroeconomic Space Studies (fiscal policies) Is there a space economy? A LEO economy? Economic Theory and Early Studies: What are we measuring (income, jobs, productivity, ROI's; multipliers, benefits?)
January 28	Microeconomic Theory Review: Assumptions: Applying them to space issues and analyses Overlap of political and economic factors for space business ventures Overcoming barriers to entry into space business (opportunity costs) Theory of Demand/Consumer behavior
February 4	Microeconomic Theory Review: Production R&D as a production cost Cost Analysis and Supply Curves Putting Demand and Supply together--equilibrium
February 11	Microeconomic Theory Review: Estimating Demand and Business Forecasting
February 18	Microeconomic Theory Review: Monopoly, Oligopoly, and Monopolistic Competition Other economic analytic tools (game theory; decision trees, etc.) Example: economics of proposals for resources in outer space
February 25	Economic History and Technology (Guest Speaker (invited)—Alex MacDonald, NASA)
March 4	Space Technology Transfer, Spin-offs, Spin-in, Innovation Considerations on Government Budgeting, Dan Schory (invited), OMB ?
March 11	Cost Economics for Space Programs and NASA strategic planning (Guest Speakers (invited)—Thomas Coonce, NASA, Jonathan Krezsl)
March 18	Spring Break
March 25	Finance, Economics, Business, and Business Planning Case Study: Economics of Launch Vehicles; Case study: Economics of Space Resource Use
April 1	Finance and contracting issues
April 8	Student Presentations:
April 15	Student Presentations:
April 22	Student Presentations:
	Term Paper and Final Presentation Viewgraphs due