

EcoValuation Working Group: Course Guide and Curriculum Framework
Ecosystem Finance and Management

School of Natural Resources & Environment
University of Michigan

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Here we present courses offered at the University that graduate students can take to explore ecosystem services, ecosystem valuation, conservation and ecosystem finance, and ecosystem management and decision making.

Ecosystem Finance and Management: These courses introduce students to conservation finance options either through market or non-market mechanisms and how this relates to successful decision-making. Students will learn traditional methods of how ecosystem services valuation relates to management decisions. Students will learn about financial mechanisms such as Payments for Environmental Services (PES), biodiversity offsets, carbon mitigation and adaptation schemes (ETS, CDM, JI, Voluntary), and certification schemes. Several courses also offer insight into how companies use ecosystem valuation as risk management and competitive strategy.

NRE 501.049: Ecosystem Services: Professor Brad Cardinale. Winter Term

See above for description.

NRE 510 (Part2). Professor Michael Moore.

NRE 669: Advanced Environmental Economics: Professor Vant Veld. Fall Term

Description: In the presence of pollution externalities, market allocations are typically inefficient and corrective government regulation may be desirable. This course first reviews solutions favored by economists, namely Pigovian taxes, tradable pollution permits, and judicial remedies, but then points out various real-world informational, technological, and political constraints that make such solutions difficult or impossible to implement in practice. The course then focuses on optimal interventions in the presence of these real-world constraints. Topics discussed are likely to include (1) optimal regulation when firms possess more information about compliance costs than regulators; (2) optimal enforcement of regulations when monitoring is costly; (3) non-market methods of measuring environmental and resource values; and (4) the interrelationship of environmental issues and international trade.

NRE 686: Environmental Policy: Professor Rabe. Winter Term

Description: Politics of Environmental Protection --- This course will consider the capacity of North American political institutions to shape effective environmental protection policies,

devoting primary emphasis to the United States but also examining Canada and Mexico. It will consider all governmental levels but be particularly attentive to the evolving role of American state governments, including questions of cross-border governance and relations between the federal government and non-US authorities. Major topics will include the ongoing evolution of climate change policy, related issues such as renewable energy policy and the development of market-based policies, and regulatory integration across environmental media of air, land, and water.

FIN 615: Valuation: *Business School Class with prerequisites (FIN 503, 513 or 551)*

Description: Valuation --- This course focuses on corporate asset management, in particular, on valuation. Topics include capital budgeting methods, estimating incremental cash flows, estimating cost of capital, valuation of projects, valuation of companies in takeovers, valuation of leveraged buyouts, valuation of private companies and valuation of strategic options. The course also covers working capital management.

FIN 637: Finance and Sustainable Enterprise: *Business School course with prerequisites (FIN and BE core)*

Description: Finance and the Sustainable Enterprise --- This course deals with unique financial valuation and management issues faced by a sustainable business. We will study the efficacy of traditional and modern financial methods in enabling corporations to develop and implement sustainable strategies.

FIN 636: Impact Investing: *Business School course with prerequisites (Completion of Core and FIN 615)*

Description: Impact Investing --- This course uses an economic/financial framework to develop methodologies to enable social enterprises to serve their complex mission of creating both financial and social value. Specifically, we will develop frameworks to measure the financial and social impact of investment decisions. Given the recent emergence of the social enterprise, the course will have a major focus on issues confronted by social "entrepreneurs". The course will also be very useful for managers of existing private and public entities because they are increasingly being confronted with issues that cross traditional boundaries of the private and social sectors.