

How Smith Finance Prepares Students for Industry with Experiential Learning Projects (ELPs)

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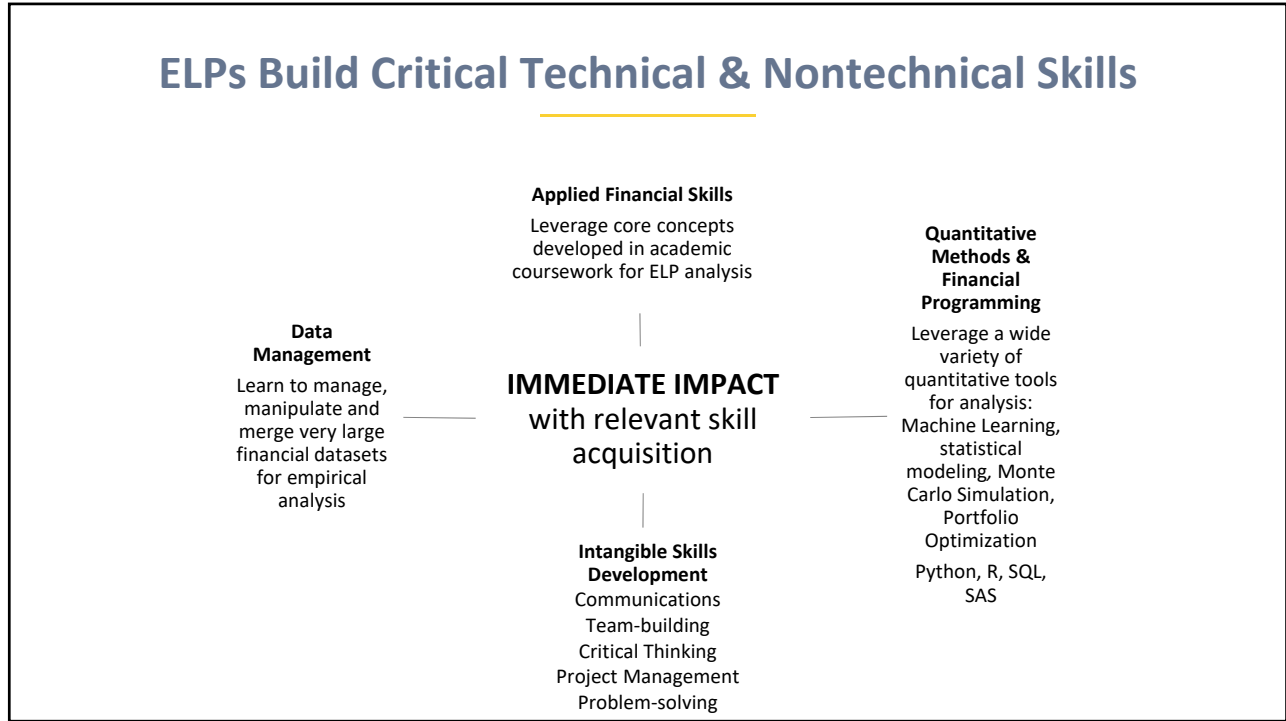
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TRANSFORMATIONAL LEARNING

Experiential Learning Projects (ELPs) established several years ago provide MS Finance and MS Quantitative Finance students with hands-on projects to “test drive” their academic skills

- A corporate or governmental “sponsor” for each 8-week long ELP
- Typically, “2nd year” students are selected with strong data, modeling, risk management, fixed income and portfolio management coursework
- Projects focused on a real business problem of interest to the sponsor
- Students manage the project in a fast-paced, team-based environment with deliverables to the faculty advisor each week
- ELPs have become regularized for two sponsors which provides them with access to a pool of graduating students with knowledge of their company and business

ELPs Build Critical Technical & Nontechnical Skills



LEARNER OUTCOMES: An Illustrative ELP on Climate Risk

<i>Incorporate Models Into Analysis</i>	<i>Inform Decision-making</i>	<i>Identify Investment Risks</i>	<i>Define Data Requirements</i>	<i>Understand Climate Science</i>
Develop climate data and models into financial and risk analyses and management/mitigation (including stress testing and disclosures) and evaluate the implications and reasonableness of the resulting analysis	Conduct climate risk analysis for investment decision making, strategic planning and effectively communicate key messages	How climate and weather impact company earnings, asset valuations and various enterprise-wide risks (credit, market, operational, supply chain, legal, etc.) and how this might change under current climate trajectories	Explore the types of climate data and models available and evaluate their appropriateness for different combinations of climate variables and risk types	State of the art research, including current and historical trends in global and regional climate change

ELP Projects Have Relevancy to Today's Financial Services Risk Challenges

Greatest Hits

- Valuation of Credit Risk Transfer Securities: Stochastic Simulation Modeling
- Development of a Housing Market Risk Index: A Machine Learning Approach
- Machine Learning vs Parametric Methods for Mortgage Automated Underwriting Scoring Models
- An Empirical Analysis of Expected and Stress Losses on FHA Loans
- Effects of Nonbank Originators and Servicers on Mortgage Default and Prepayment
- Effects of Hurricane Events on Mortgage Loss Severity
- A Copula-based Approach to Determining Mortgage Insurer Counterparty Risk
- Empirical Adjustments to Basel Risk-based Capital Models
- A Stochastic NPV Simulation of Pharmaceutical Manufacturing Investment in the US and Abroad

Strong Corporate and Governmental Support for ELPs

Deloitte.



CapitalOne

**Freddie
Mac**

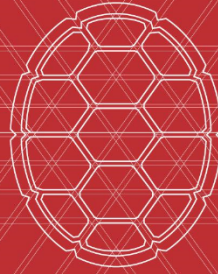


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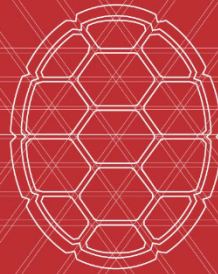
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QUESTIONS?



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Introduction of Climate Finance Concept

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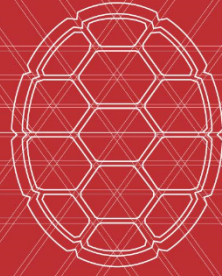
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Climate Finance Curriculum Concept

- Building on strong and unique partnership with climate scientists from UMd's Atmospheric and Oceanic Sciences Department over the last 2 years
- Guiding principle is to develop linkages between climate science, finance and risk for our MS finance students
- As climate change policy and analysis becomes more engrained in corporate planning and investment exercises, the demand for skilled analysts that have a strong understanding of the basics of climate science and associated models as well as how to use those models to improve financial and risk models will set of graduates apart from other programs

Climate Finance Curriculum Strategy

- To test the concept and demand for this integrated approach to climate finance we plan on offering a two-course sequence, Survey of Climate Finance: Concepts, Models and Methods where we would leverage faculty from AOSC and Smith Finance.
- Since these would be electives in our MFin program, it would be straightforward to add them into the curriculum starting with the Fall 2023.
- As we monitor the interest in these courses, over time we could expand this into a separate Climate Finance track in our Mfin program.
- Long-term, should demand and interest in this program continue we could develop a standalone MS Climate Finance academic degree program.
- In addition, we are working with our Executive Education team to build out an on-demand set of short modules on climate finance for delivery to industry practitioners later this year



QUESTIONS?



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