

# MASTER IN SCIENCE IN SUSTAINABILITY ANALYTICS AND MANAGEMENT

The **Master of Science in Sustainability Analytics and Management (SAM)** program provides students with backgrounds in engineering and other STEM fields with the training, knowledge, and real-world skills they need to address the full range of challenges facing today's sustainability professionals.

Using an applied approach, the SAM program teaches you how to leverage technological innovation, data analytics, and entrepreneurship to develop and manage sustainability systems. Courses examine the interaction between economic growth and the environment, including how to apply environmental-economic models and pollution prevention and control strategies.

The program's emphasis on technical analytics—a core competency that is increasingly required for sustainability professionals—prepares our graduates to excel in positions responsible for measuring and reporting on ESG data for companies and organizations.

Stuart School of Business is a global leader in bridging technology and business, offering distinctive education that provides students with the knowledge and skillsets to become outstanding professionals in analytics, economics, finance, marketing, business, public administration, operations, and management.

Business at Illinois Tech has a prestigious history that dates back to the late 1890s, with some of the nation's first courses in "Home Economics" and "Household Management" ("Family and Consumer Science") being offered by the Lewis Institute, Stuart's original home, and the Institute's subsequent formation of the university's Department of Business and Economics in 1926. Combined with the merger of the Lewis Institute with the Armour Institute, and the earlier pioneering works of Philip D. Armour, a merchant financier, Julia A. Beveridge, a librarian turned public administrator, and Frank W. Gunsaulus, an entrepreneurial preacher in the 1880s, the Department Business and Economics ultimately grew into a separate school at Illinois Institute of Technology – the Stuart School of Business, in 1969, with a gift from Lewis Institute alum and renowned financier Harold Leonard Stuart. Harold L. Stuart himself was a national leader in the field of investment banking in the first half of the 20th century, and his Chicago investment bank played a pivotal role in establishing the city as a global financial hub.

Over a period of more than 125 years, harnessing curricular innovations by Julia A. Beveridge and George N. Carman, and incredible scholarly works by trailblazing Illinois Tech scholars Herb A. Simon (author of *Administrative Behavior*, later awarded the Nobel Prize in Economics), Karl Menger (developer of the St. Petersburg paradox in economics) and Abe Sklar (developer of the Copula in financial modeling), the Stuart School of Business has refined education in the disciplines of analytics, economics, finance, business and public administration, marketing, and management.

A long-standing leader in curricular innovation, in 1990, building on the foundational works of numerous Illinois Tech scholars, and Harold L. Stuart's own contributions to finance and the broader business community, the Stuart School of Business established quantitative finance as an academic discipline, with a world's first

postgraduate Master's program in Financial Markets and Trading – a program that highlighted a new model for embedding into a postgraduate academic program the emphases on career readiness and connectedness with the business community, and transformed business school education.

Today, the Stuart School of Business continues to be a frontier innovator in accredited education, offering academic programs and co-curricular opportunities that place students on the path to self-actualization and career success. Leadership, entrepreneurship, experiential learning, positive societal impact, and connectedness to the business community, combined with a human-centered approach to student development, and an unyielding focus on student success, continue to be core pillars at Stuart. Stuart is accredited by the Association to Advance Collegiate Schools of Business (AACSB) – an accreditation achieved by fewer than 6% of business schools worldwide.

The Master of Science in Sustainability Analytics and Management requires the successful completion of 33 credit hours (11 courses). Full-time students are expected to enroll for at least three courses per semester and can complete their degree in two years or less. Part-time students can enroll for as few as one course per semester. The program schedule enables incredible flexibility to students who wish to accelerate their studies. For example, full-time students may be eligible to graduate in 12-16 months by beginning their studies in the summer of year one and completing their program in the summer of year two.

## Curriculum

Code	Title	Credit Hours
Required Courses		
SAM 502	Environmental Law	3
SAM 503	ESG Analytics and Management	3
SAM 504	Industrial Ecology and the Circular Economy	3
SAM 505	Environmental Economics and Finance	3
SAM 512	Environmental Risk Assessment	3
SAM 541	Sustainable Energy Systems	3
MBA 504	Analytics for Decision Making	3
BUS 550	Business Statistics	3
Choose 2 electives		
SAM 501	Environmental Policy	3
SAM 529	Social Entrepreneurship	3
SAM 532	Environmental and Energy Law Clinic	3
SAM 542	Economics of Energy Systems	3
SAM 543	Environmental Compliance and Regulation	3
SAM 595	Special Topics in Sustainability Analytics and Management	3

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SAM 599	Independent Study in Sustainability Analytics and Management	3
MBA 518	Ethics & Corporate Social Responsibility	3
MBA 501	Financial Statement Applications	3
MBA 509	Financial Management	3
MBA 513	Operations and Technology Management	3
MSF 503	Financial Modeling	3
MAX 503	Marketing Research and Engineering	3
MAX 506	Database Design and SQL	3
MAX 507	Visual Analytics - Data Analytics & Visualization	3
PA 580	Policy Forecasting and Evaluation	3
PA 581	Policy Economic Modeling and Design	3
PA 501	Introduction to Public Administration	3
<b>Total Credit Hours</b>		<b>30</b>