Master of Science in Law: Where Engineering, Law, and Business Converge

The Master of Science in Law helps students prepare for the changing and expanding role of the modern engineer. Successful engineers are no longer focused just on technical aspects; in today’s world, they must understand the upstream and downstream implications of their work as they interact with a broader set of issues and an expanded group of stakeholders. The MSL produces well-rounded engineers who adapt to dynamic situations, take on cross-functional and leadership roles, and bring a holistic, strategic focus to their work.

SKILLS AND KNOWLEDGE OF AN MSL-TRAINED ENGINEER

INTELLECTUAL PROPERTY:
Engineers increasingly create value through the development and management of intellectual property.

CURRICULUM HIGHLIGHTS:
• IP Fundamentals
• Patent Law
• IP Strategy & Management

ETHICS AND INNOVATION:
Modern engineers work on cutting-edge ideas that raise new issues for the profession, including thorny ethical issues.

CURRICULUM HIGHLIGHTS:
• Ethics & Law in STEM-Related Fields
• Legal & Regulatory Issues in Emerging Industries
• Innovation Lab

REGULATION:
Many engineers work in heavily regulated industries; to succeed, they must understand the process of regulation and its impact on their work.

CURRICULUM HIGHLIGHTS:
• Legal & Regulatory Process
• Regulatory Strategy & Communication
• Regulatory Compliance: Product Approval & Life Cycle Issues

LEADERSHIP:
To function effectively and build consensus on multi-disciplinary teams, engineers need strong communication, teamwork, leadership, and negotiations skills.

CURRICULUM HIGHLIGHTS:
• Negotiation Skills & Strategies
• Value-Based Decision-Making
• Design Thinking

DATA:
Modern engineers must readily adapt to the wealth and intensity of big data, and they must organize, utilize, and communicate large quantities and varieties of information.

CURRICULUM HIGHLIGHTS:
• Data Science in a Business Context
• Data Privacy & Security
• Assessing AI & Computational Technologies

BUSINESS:
Engineers interact with company-wide business considerations; they are involved in management, commercialization, strategy, and innovation.

CURRICULUM HIGHLIGHTS:
• Business Formation & Structure
• Entrepreneurship Law
• Accounting & Finance

MSL Faculty Perspective

“Teaching a course on Design Thinking in the MSL allows me to challenge STEM professionals to critically assess the often qualitative aspects of difficult problems. By integrating a design thinking approach into the process of strategic problem solving, the MSL facilitates STEM professionals’ expansion beyond traditional technical roles and provides them a pathway to the organizational leadership table.”

—Dan Brown, PhD; MSL Faculty; Clinical Professor, McCormick School of Engineering
MSL Alumni Employment

MSL Alumni Perspectives

The knack for analytical problem solving that engineers bring with them, combined with the substantive knowledge and skills derived from MSL training, allows MSL-trained engineers to quickly grow in business leadership roles. The MSL makes me a more versatile professional in a variety of contexts, including with supplier contracts, licensing agreements, patent drafting and white space analysis, negotiations, business development, and even public speaking."
—Vishal, MSL ’15
Current Job Title: Senior Lead MRI Systems Integration Engineer, GE Healthcare
Pre-MSL Degrees Earned: BS, Electrical Engineering; MS, Biomedical Engineering

The MSL program provides practical knowledge of legal and business concepts that can be combined with prior technical expertise to advance one’s career in an array of industries. I am leveraging my legal and regulatory knowledge to understand and shape the risk and control environment at Discover Financial."
—Antonia, MSL ’15
Current Job Title: Project Manager, Discover Financial
Pre-MSL Degrees Earned: BS, Industrial Engineering

All of my company’s products (trauma devices) require an FDA-equivalent registry, and we are also involved in the government bidding process. The MSL broadened the scope of my understanding and helped me to see the bigger picture beyond the technical. The specific knowledge gained in the MSL is a valuable asset; it allows MSL graduates to understand markets and the entire process of product development."
—Rodrigo, MSL ’15
Current Job Title: Senior Sales Representative, Johnson & Johnson
Pre-MSL Degrees Earned: BS, Biomedical/Medical Engineering

www.law.northwestern.edu/msl