

College of Engineering Perry Ellis International Logistics Research Institute

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Objectives

The College of Engineering Perry Ellis International Logistics Research Institute of the University of Miami is an industry/academia collaboration with the following mission statement:

“To provide top notch quality multi-disciplinary education, training and research programs in supply chain management and logistics that meet the current and emerging needs of the community and industry in the U.S., Latin America and the rest of the world”.

The Institute will accomplish this by:

- disseminating logistics knowledge thorough a variety of educational programs (on and off-campus)
- creating logistics knowledge through engineering research and
- applying state of the art logistics knowledge through joint industry/academia cooperative efforts
- establishing a research environment for students to learn, practice and train in the field of logistics.

The Institute will focus on capitalizing on the role of Miami as a major transportation hub and its importance on the entire United States – Latin America supply chain, further customizing the services offered to its business partners. Further, the Institute will be responsible for developing and offering courses, workshops and seminars to executives both in the South Florida and Latin America regions. Finally, it will explore the viability of creating a concentration area in supply chain management and logistics both at the undergraduate and graduate curricula.

Competency Gaps Addressed

While many companies are involved in the analysis of their supply chains, this analysis in most cases is based on experience and intuition; only in a few instances analytical methodologies and tools have been used. On the other hand, most of the tools that have been developed by the academic community during the last two decades have proven to be not sufficiently robust and flexible to be used by the logistics industry.

However, during the last few years advances have been made in the development of more sophisticated analytical tools and decision support systems that are not necessarily familiar to industry. Such decision support systems employing tools from operations research, geographic information systems, database management and graphical user interfaces can potentially improve significantly the quality of logistics decision-making. This interdisciplinary structure imposes unique requirements in logistics education at both the undergraduate and graduate levels; these requirements, for the most part, have not been addressed successfully by traditional, vertically organized engineering and business school programs. Effective educational programs should go beyond the traditional course structure and instead embrace a holistic composite modeling approach synthesizing state-of-the-art models, innovative software, simulation based educational games and case studies. This is the approach that the Institute aims to undertake both in its educational and research roles.

Business Partners

Each business partner will provide an annual contribution to support the research and educational programs of the Institute. The services provided by the Institute to the business partners will be commensurate to the level of funding. The funds committed by the business partners will be used to provide:

- Professional education (short courses, seminars and workshops tailored to the specific needs of the Business Partners)
- Customized research that provides new knowledge, and methodological tools to address issues of immediate interest to the business partners.
- Generic research, oriented toward developing new knowledge, strategies, and methods for the logistics community
- Support for faculty and students conducting the research

Resources

The Institute will be housed in the Department of Industrial Engineering (IEN) at the College of Engineering of the University of Miami. The Department is almost 50 years old and offers the following accredited degrees:

- B.S. in Industrial Engineering
- M.S. in Industrial Engineering
- M.S. in Management of Technology

- M.S. in Environmental Health and Safety
- M.S. in Occupational Ergonomics and Safety
- M.B.A./M.S.I.E
- Ph.D. in Industrial Engineering
- Ph.D. in Ergonomics

The Department has pioneered the offering of innovative off-campus and executive programs at the graduate level for over 20 years, and it has accumulated extensive experience in providing high caliber continuing education programs. These programs were offered to professionals from a wide range of companies including among others IBM, AT&T, Rockwell International, McDonnell Douglas, United Space Alliance, Johnson & Johnson Cordis Corporation, and Pratt & Whitney.

Laboratory Facilities

The following technical laboratories and facilities are available within the IEN Department:

- Systems and Operations Research Laboratory
- Work Design Laboratory
- Biomechanics Research Laboratory
- Rapid Prototyping Laboratory
- Manufacturing Engineering Laboratory
- Work Physiology Laboratory
- Industrial Hygiene Laboratory
- Productivity Research Laboratory

All the laboratories are outfitted with state of the art computers and research equipment. In addition, the Department houses a brand new high tech conference room with internet connectivity, featuring the latest multimedia and audiovisual equipment specifically designed for executive training.