Port Engineering and Logistics (PEL)
International Center

(Centro Internacional de Ingeniería de Puertos y Logística)

DISUR – May 2009

A DISUR Project Operated by Universidad del Turabo
Puerto Rico

- Coordinates: 18.2° N; 66.4° W; 1,000 miles off the south coast of Florida
- East of the Dominican Republic, West of the Lesser Antilles
- In the junction of the Atlantic Ocean and the Caribbean Sea
- Average temperature: 82.4 °F (28 °C)
Puerto Rico

• Administrative autonomy under the US flag
• 9,104 km² (3,514 sq. mi) - population: 3,912,055 - density 434 /km² (1,115 /sq mi)
• Official languages: Spanish and English
• Estimated per capita GDP: $19,000
**Ponce: La Perla del Sur**

- Third largest city of Puerto Rico (population: 187,000)
- Hon. María E. Meléndez Altieri, Ponce Mayor elected November 2008
- Excellent communications & telecommunications infrastructure
- Banking institutions (12); number of branches (30)
- Mercedita Airport: 8,004 f. long strip (group IV aircrafts), flights to New York, Orlando, Santo Domingo, Punta Cana (May)
- Modern hospitals (5), universities (6) and hotels (721 beds)
- 75 miles from the largest Commercial Airport in Puerto Rico
- 75 miles from San Juan, the largest Caribbean cruise ship port in the Caribbean
“Puerto de las Américas”

- World-class public terminal with an adjoining large-scale industrial zone located in Ponce
- Key component of the regional economic development strategy, promoted by the Alliance for the Integrated Development of the South (DISUR)
- Designed to be an international maritime distribution and logistic center.
- Entrance channel and turning basin: 50 feet deep, 650 wide, 3,000 long
- Capacity: 2 million TEU’s: one of the largest in the Caribbean
- Yard capacity of 250 thousand containers for 2008: investment of $42.5 millions
- Available for future expansions in value-added operations
- Investments in infrastructure (2009): $220 millions
PEL International Center

- **Vision**: Be internationally recognized as a center of excellence for training and professional preparation in the fields of transportation, logistics and for the development of the “Port City”. The Center will constitute a competitive advantage for the region and the country.

- **Mission**: Develop the professional leadership, as well as the technical and administrative workforce, specialized in the new technologies and best practices for the development of the “Port City”.
Focus of the Center

• Integrating a broad-based constituency of industry, government and academic organizations
• Maintaining academic offerings on maritime economy, transportation-related technologies, logistics and planning, focused on the needs of “Port City”
• Enhancing existing academic programs at all levels
• Promoting a diversified, international student base and the attraction of foreign participants
• Developing innovative services in line with global tendencies and industry needs
• Contributing to the economic development of the DISUR region and Puerto Rico.
Organizational Structure

Advisory Board
- Industry
- Universities
- Central Government
- Municipal Government
- DISUR

Executive Director

Academic Coordinators & Instructors

International Affairs

Consulting and R&D Services

Administration & Planning

Student Support Services
Benefits for Puerto Rico

• Competitive advantage to attract new industrial and commercial projects

• Attract international visitors (professionals and students)

• Unique facilities for professional and technical training programs

• Enhance existing universities and academic institutions
Benefits for Puerto Rico (cont.)

• Research & Development and consultancy services to the Industry

• Facilitate knowledge and technology transfer to the Region

• Support entrepreneurial education and new business creation

• Provide a multidisciplinary professional and scientific environment focused on the needs of the “Port City”

• Attract financial resources from international and federal programs
Partners

1. Puerto Rico Ports Authority
2. Ponce Municipality
3. Puerto Rico Industrial Development Company
4. Puerto Rico Southern Chamber of Commerce
5. Latin American and Caribbean Consortium of Engineering Institutions (LACCEI)
6. Universidad del Turabo
Partners

7. University of Puerto Rico
8. CAFTA Group UCW America
9. General transportation companies
10. Maritime freight transportation companies
11. Logistics companies
12. Freight forwarders and custom brokers
Academic Programs

School Business and Entrepreneurship
• Master Degree in International Business
• Bachelor Degree in Business Administration with Concentration in Logistics

School of Technical Programs
• Certificate in Port Operations
• Associated Degree in Ports Management

School of Engineering
• Graduate Engineering Certificate in Multimodal Transportation and Port Operations
Business and Entrepreneurship
Master Degree in International Business

Description

This Program was designed to focus on managerial aspects, inherent to international business. It will address strategies to incorporate modern tools and information to facilitate international businesses operations.

1. Historic, philosophical, economic and sociological frameworks of the international business.
2. Present and future aspects of the economic and political global development that impact international business.
3. Cultural and environmental factors impacting international organizations.
4. Managerial issues that are associated with the international business.
Business and Entrepreneurship

Master Degree in International Business

Core Courses

• International Business Environment
• International Business in Latin America and the Caribbean
• Legal Environment of International Business
• International Management
• International Marketing
• Managing Global Production
Business and Entrepreneurship
Master Degree in International Business

Employment Opportunities

• Transnational Companies producing and manufacturing in Latin America, the Caribbean and Puerto Rico
• International Banks
• Federal Government Agencies
• Private Consultant
• International Organizations, like the WTO, IMF, Word Bank
• Service Firms, like UPS, FEDEX, etc.
Business and Entrepreneurship
Bachelor Degree in Business Administration with concentration in Logistics

Description

• This Program was designed to provide the students the necessary technical and professional skills in the logistics area.

• Graduates will be able to contribute to improve the systems efficiency and their companies productivity by implementing innovative procedures and technologies.
Business and Entrepreneurship
Bachelor Degree in Business Administration with concentration in Logistics

Core Courses

• Principles of Logistics
• Logistics and Supply Chain Management
• Traffic and Transportation Management
• Inventory and Purchase Logistics
• Logistics and Regulations
• Integral Logistics Management
Business and Entrepreneurship
Bachelor Degree in Business Administration with concentration in Logistics

Employment Opportunities

• Manufacturing firms, specially from Pharmaceuticals.
• Service firms.
• Ports and airports
• General transportation companies
• Maritime freight transportation companies
• Logistics companies
• Freight forwarders and custom brokers
Technical Programs
Associate Degree in Ports Management and Operation

Description

The Associate Degree in Port Management and Operations will educate students in concepts, strategies and tactics of port management and operations, transportation services, and added value zones. Particular attention will be placed on the enterprises or services that surround port clusters.
Technical Programs

Associate Degree in Ports Management and Operation

Description

Special consideration will be given to the structural changes in the world economy, which includes: port management and operations, logistics, security and technology. Students will be instructed in current business practices, business development, trade and shipping. The program will focus on the development and broadening of the students knowledge in transportation related services and practices of port management and operations.
Technical Programs
Associate Degree in Ports Management and Operation

Core Courses

• Introduction to Port Operations
• Logistics and Supply Chain
• Transportation Security
• Development of Port Cities
• Tourism in Port Cities
• International Shipping
• Maritime Economics
• Shipping Management
**Technical Programs**
Certificate in Port Operations

**Description**

The certificate focuses on the public and private sector needs for professionals in port related services. A broad view of concepts, strategies, and tactics in port operations, transportation services, and added value zones is presented for current business practices.
Technical Programs
Certificate in Port Operations

Core Courses
• Introduction to Port Operations
• Logistics and Supply Chain
• Transportation Security
• Development of Port Cities
• Tourism in Port Cities
• International Shipping
Technical Programs

Employment Opportunities

Both programs prepare the students for an entry level and middle management with the initial concepts in ports operation, transportation and added value zones industry.

Also provide the students with the skills and knowledge in current practices, regulations, technology and security issues.
Engineering
Graduate Engineering Certificate in Multimodal Transportation and Port Operations

Employment Opportunities
The certificate provides training and preparation for engineers intending to perform in the port engineering and logistics fields, which includes:

– Ports Management
– Shipping and Freight
– Logistics
– International Trading
– Inventory Management
– Supply Chain Management, etc
**Engineering**

Graduate Engineering Certificate in Multimodal Transportation and Port Operations

**Description**

- It is intended for engineers, 15 credit-hour from the courses offered by the School of Engineering to be completed in (1) one year. The courses may also be offered as independent continuing education courses.

- Through the certificate the students will obtain the skills needed for the design, optimization and management of Port Operations and Logistics.
Engineering

Graduate Engineering Certificate in Multimodal Transportation and Port Operations

Core Courses

• Multimodal Transportation
• Logistics and Supply Chain Management
• Port Operations and Management
• Scheduling and Simulation
• Human Factors and Regulations in Port Operations