One Community One Goal (OCOG) created a Targeted Industry Strategic Plan identifying six key target industry clusters and skills that will help maximize South Florida’s economic growth. As a public institution deeply engaged within our community, Florida International University embarked on a self-study to ensure that our current and future curricula and initiatives align with the OCOG Strategic Plan. This process included the participation of the top leadership at our university. In completing this process, we have positioned FIU to make immediate and significant contributions to each of the six industry clusters. In this document we describe the target industries and the university’s current and future activities in support of them.

Themes

- Creative Design ....................... 2
- Hospitality & Leisure ................. 3
- Information Technology .............. 4
- Life Sciences .......................... 6
- International Banking & Finance ... 8
- Trade & Logistics ..................... 9
Florida International University is proud to play an important role in the current and future economic development of our region. As an anchor institution, we have educated more than 110,000 people who live and work in South Florida. These FIU alumni are an essential resource with the ability to not only take good jobs, but to create good jobs.

FIU is in a unique position to prepare Miami-Dade County’s workforce. Our Worlds Ahead strategic plan focuses on globalization, health, the environment and the arts. This strategic plan is supported by world-class faculty engaged in research, teaching and creative endeavors in the industries and sectors that the Beacon Council has targeted for Miami-Dade’s future economic growth efforts. We are particularly proud of our STEM-related teaching and research initiatives. They will be key to 21st Century competitiveness.

Further supporting the One Community One Goal initiative, FIU has been engaged in problem-solving partnerships with key institutions in our community to address crucial issues in South Florida related to scholastic achievement at the K-12 level, improve basic family health conditions in low-income neighborhoods, and reduce costly traffic bottlenecks throughout the community. Through our partnerships we also have supported institutions in our community that are vital to job creation and well-being.

With One Community One Goal as a map, I am excited about the future of Miami-Dade County. I look forward to working together with our community partners to make this initiative a success.

Mark B. Rosenberg
President
Creative Design
Creative design adds tremendous value to our community and FIU is a leader in the education of creative design thinkers. FIU will continue to help position the creative sector – understood broadly to include design, arts, engineering and mass media – as a central factor of the emerging knowledge and creative economies in Miami-Dade, as well as a critical and valuable component of the intellectual and cognitive life of the university itself.

Current Initiatives

• Establish the Design Career Discovery program at South Beach (DD@SoBe) at Miami Beach Urban Studios (MBUS) for high school students interested in architecture, landscape architecture and interior architecture.

• Establish the Environmental Structures and Technologies Lab (ESTL) as an industrial think-tank for design research on new materials and systems.

• Develop a digital media track in the MFA program in the Department of Art + Art History.

• Start an online global strategic communication master’s program as an extension of the School of Journalism and Mass Communication’s existing campus-based program.

Future Initiatives

• Create a digital media major in the School of Journalism and Mass Communication.

• Grow continuing educational post-professional offerings in real estate development, industrial design and other creative design areas through the Master of Arts in architecture degree program.

• Establish an annual industry-university sustainable construction expo to showcase the advances in the field and foster new developments.

• Increase offerings in computer-aided design and digital fabrication.

• Leverage the current professional certificate program in sustainable construction to provide cross-training between FIU’s engineering and design programs.

• Expand and formalize current collaborations among faculty in architecture and engineering into a cluster of cross-disciplinary research in green and sustainable building design. The cluster will include the departments of Construction Management, Civil and Environmental Engineering, and Architecture, and will serve and provide guidelines to practitioners, designers and building code officials.
Hospitality & Leisure

The Chaplin School of Hospitality & Tourism Management offers bachelor’s and master’s degrees in hospitality management, with concentrations in tourism, food service, beverage and event management. Established more than 40 years ago, the school has grown to more than 1,700 students on FIU's Biscayne Bay Campus, with a student body represented by a broad mix of global origins. Consistently ranked among the top 10 hospitality programs in the United States, the school has become recognized as a leader in international education, with a strategic collection of partnership institutions in Europe, Latin America and Asia.

Current Initiatives

• Develop a model for medical tourism research in association with the Medical Tourism Association, the Miami Convention & Visitors Bureau, and local medical associations. These efforts would assist South Florida in developing its medical tourism profile.

• Partner with the Medical Tourism Association and assist with producing its 2012 4,000-attendee Worldwide Convention, which will be held at the Westin Diplomat Resort in Hollywood, Fla., in October.

Future Initiatives

• Provide new laboratory space and expertise to foster research in food science, viticulture, oenology, beverage chemistry and financial modeling; project development analytics and metrics; and algorithmic testing for revenue management optimization.

• Establish new Bachelor of Science and Master of Science degrees in tourism management focused on sustainable tourism, with specific emphases in medical tourism and events tourism. These degree programs will be launched in the 2014-2015 academic period.

• Develop advanced courses in IT to be integrated within the curriculum, expanding on topic areas such as revenue management, channel management, forecast modeling, data mining and business analytics.
Information Technology

Attracting, developing, and retaining IT businesses and related target sectors (health care, tourism, banking, logistics) requires a healthy ecosystem with a competitive talent pool and strong infrastructure – hence an educational partner.

FIU has successfully trained professionals in IT target occupations: application programmers, information system analysts, computational scientists, database administrators, managers for information systems, network administrators, security experts and software engineers. FIU offers bachelor’s, master’s and doctorate degrees in computer science; bachelor’s and master’s degrees in IT; master’s degrees in telecommunications and networking; and bachelor’s, master’s and doctorate degrees in management information systems. The IT sector in Miami is expected to grow by 1,800+ positions by 2020; during the same period, FIU will produce more than 1,500 IT graduates. Miami can serve as an IT gateway to Latin America for many corporations. Many of FIU’s IT students and alumni are bilingual Hispanics, making them effective for regionalization of IT products, or service and support to Latin American corporations. FIU also has IT research and education partners including the Latin American Grid Consortium, where we send our top students to conduct R&D at IBM Research, as well as leading universities throughout Latin America.

There are nine niche IT industry sectors holding significant potential for job creation: back office support and IT, computational science, health IT, data centers, digital media, logistics IT, mobile applications, simulation training, and tourism IT. In order for these niches to take hold, they need to leverage a core competency of both the educational assets and technical capacity of the area workforce. Several of these niche areas naturally align with assets at FIU. The university offers a variety of courses for the development of IT professionals in application programming, systems administration, and database or network management. FIU conducts research in computational science and has received National Science Foundation (NSF) awards to develop cyberinfrastructure frameworks in computationally challenging areas; e.g., hurricane forecasting, health care and bioinformatics. FIU has a significant footprint in data centers with its High Performance Database Research Center in collaboration with IBM and Google, using cloud technology to forecast the economic impact of disasters. FIU is funded in simulation and logistics for its advanced modeling, algorithm training, data mining techniques and information fusion, and state-of-the-art visualization that is applied to hurricane-induced coastal surge flooding used by NOAA and emergency managers in the state of Florida. Similarly, FIU is extending its footprint in digital media, tourism IT and mobile applications.
Current Initiatives
• FIU is restructuring its MS-IT to focus on a number of these areas in close partnership with the industry. IT has a cross-cutting impact on aviation (simulation), creative design (software tools for design), international banking and finance (technical customer service, back office IT, and mobile applications), life sciences and health care (computational science and health IT), and trade and logistics (logistics IT).

Future Initiatives
• Pursue public-private economic development proposals to enhance software R&D and training assets in key areas, including: (1) Center of Excellence in Computational Neuroscience, (2) Center of Excellence in Software Visualization and Analytics, and (3) Center of Excellence in Cloud, Web and Mobile Applications.
• Expand FIU’s Discovery Lab and Collaborative Open Innovation Lab (COIL) as a means to transform the Miami IT community and build a culture of IT innovation to make Miami a leader in software innovation and entrepreneurship.
• Help recruit and retain IT firms and build technology talent networks.
• Make Miami a destination for IT conferences and workshops, leveraging digital convergence conferences to create a vibrant IT community.
• Develop Miami’s IT brand as a marketing strategy with co-branding; e.g., the Greater Miami Chamber of Commerce’s “Miami’s Got Tech” event.
• Co-establish IT Park@FIU with the industry as a co-located facility featuring IT solution centers, IT anchors, IT educational and training and IT consumer attraction (hot) spots.
LSSF is aimed at spawning and stimulating economic growth in South Florida. It links the elements of the innovation ecosystem: research, entrepreneurship, venture capital and life sciences companies, in an effort to increase research density and accelerate research commercialization. Additionally, by strengthening the K-20 STEM education and talent development in the region, LSSF will enhance the life sciences and biotechnology workforce required to support economic innovation.

LSSF Executive Committee members include leaders of 16 educational, economic development and research institutions: Florida International University, University of Miami, Florida Atlantic University, Florida Gulf Coast University, Nova Southeastern University, Miami-Dade College, Broward College, Palm Beach State College, Indian River State College, the Beacon Council, the Business Development Board of Palm Beach County, Greater Fort Lauderdale Alliance, Florida Atlantic Research Park, University of Miami Life Sciences and Technology Park, Max Planck Florida Institute, and Scripps Florida.

The strategic priorities and goals were derived from a process that involved initial interviews with presidents of all LSSF institutional members. After creating an original draft of 18 strategic priorities, the top four were selected by consensus at the inaugural meeting of the LSSF Executive Committee in September 2011.
Current Initiatives

- Conduct an extensive asset map and cluster analysis.
  - As a key step, LSSF embarked on the development of an asset map to identify existing strengths among member institutions, identify research and industry clusters in the region, and opportunities in the life sciences and IT within the region that will provide baseline information to assist stakeholders and policy makers in future strategic planning.

- Create, develop and strengthen programs designed to increase STEM student and workforce development within the region
  - Strengthen K-20 STEM career pathway.
  - Enhance workforce development throughout the continuum.

Future Initiatives

- Establish a shared communication portal, technology platform, research core facilities and institute of commercialization.
  - Create a distinctive brand.
  - Develop a shared platform for technology and research infrastructure and a central technology transfer office.
  - Create a financial, legal and administrative model to enable shared platform and communication.

- Recruit, develop and retain talent in the region.
International Banking & Finance

International banking is an engine to Miami-Dade’s economy. Beginning in the 1940s, Florida banks began setting up international departments in Miami. Starting in 1969, international banks established subsidiaries in Miami to actively and exclusively engage in international banking throughout Latin America.

FIU’s College of Business Administration has long recognized the importance of international banking to the economy of South Florida. Many of several thousand individuals working in banks in Miami-Dade today received bachelor’s, master’s and doctorate degrees in finance from FIU. Since 1978, FIU has been offering certificates in domestic and international banking through the Finance and Real Estate Department to complement its bachelor’s of business administration degrees.

In addition, the School of Real Estate at FIU has become a leader in real estate education; its Jerome Bain Institute has been recognized as being in the top 20 in real estate research.

Parallel to commercial international banking, we have seen a growth of broker dealer firms and family offices and venture capital firms. Many of these companies specialize in servicing portfolios of international clients as well as investing in foreign securities and companies. In addition, several foreign insurance companies have opened offices in Miami-Dade County to provide financial services to non-resident aliens since the Florida Legislature approved their licensing in 2005.

Current Initiatives

- Stimulate entrepreneurship by hosting an annual conference on venture capital. Created three years ago, FIU’s Americas Venture Capital Conference (AVCC) brings innovative firms seeking venture capital funding together with sources of funding (primarily from Silicon Valley, Boston, New York, Florida and Latin America) in one location. In just the two years in which the conference has been held, the AVCC has already assisted innovative companies from South Florida and Latin America in raising in excess of $40 million.

- Continue to expand our current network of 23 dual degree partner institutions who collaborate with us on programs that allow students to immerse themselves into two different academic and cultural environments. Dual Degree Network partners include the top business schools in Latin America, Europe and Asia.

Future Initiatives

- Offer the Certificate in International Banking, currently taught in Spanish in Panama and the Dominican Republic, to other Latin American countries.

- Expand offerings in coordination with the Florida International Bankers Association (FIBA). Currently, we offer a certificate in Anti-Money Laundering, and we expect to also offer certificates in Private Banking and International Trade.
The College of Business Administration focuses its educational and research efforts on international business, supply chain management and export marketing in the Marketing, Management and International Business departments. Supply chain management research and services are provided through the Ryder Center for Supply Chain Management. The college offers majors, tracks and certificates in international business, export marketing, supply chain management and logistics. During the next two academic years, certificates in international procurement and sourcing will be added.

The College of Engineering & Computing offers a track in logistics in its Master of Science in Engineering Management. The Lehman Center for Transportation Research studies a number of areas related to logistics, mainly from the transportation side, including freight planning, integrated multimodal freight modeling, post-disaster constraints for supply chain, and disaster evacuation planning.

Current Initiatives

- Continue to organize the annual Green Supply Chain Forum, which draws attendance from local, regional and national professionals in the field.
- Enhance the logistics track under the MS in Engineering Management to include graduate certificates in logistics, especially in post-disaster conditions.

Future Initiatives

- Offer a Certificate in Supply Chain Management to undergraduate and graduate students. The focus of this certificate will be strategic sourcing, based on South Florida’s reliance on import and export management.
- Organize the Inter-American Supply Chain forum, which draws attendance from professionals from the Americas.
- Develop a logistics and freight research program under the Lehman Center for Transportation Research.
Rankings & Recognitions

**FIU** is #1 in the United States for awarding bachelor’s and master’s degrees to Hispanics.

FIU **College of Law** graduates were #1 in the state in their passage rate on the 2011 Florida Bar Exam.

The **College of Business Administration**’s international business program ranked 16 in 2012 in U.S. News & World Report’s “America’s Best Colleges”.

Robert Stempel College of Public Health and Social Work Associate Professor **Mary Jo Trepka** received the Presidential Early Career Award for Scientists and Engineers.

Engineering Professor **Arindam Chowdhury** is the recipient of a prestigious Faculty Early Career Development Award from the National Science Foundation.

Herbert Wertheim College of Medicine Assistant Dean **Pedro “Joe” Greer Jr.**, was awarded the Presidential Medal of Freedom.

Creative writing Professor **John Dufresne** has been named a 2012 Guggenheim Fellow, which recognizes exceptional capacity for productive scholarship or exceptional creative ability in the arts.

Architecture Professor **David Rifkind** received the Ackerman Prize, one of the most prestigious international awards for scholarly work in architectural history.

Herbert Wertheim College of Medicine Professor **Madhavan Nair** received a prestigious MERIT Award from the National Institutes of Health recognizing outstanding competence and productivity in research.

---

**47,000** Spring 2012 enrollment

**52,000** Fall 2015 student enrollment

**100,000** Students will graduate from FIU in the next decade

**110,000** Alumni live and work in South Florida

**180** Bachelor’s, master’s and doctoral programs

**96** Percent of faculty hold doctoral degrees or highest degree attainable in their field

**12** Colleges and schools including Medicine, Law and Architecture

**18** Division 1A sports teams, including football

**FIU** FLORIDA INTERNATIONAL UNIVERSITY

Be WorldsAhead

fiu.edu