UNIVERSITY OF FLORIDA'S 2015-2020

STRATEGIC GOALS FOR IT

OneIT for the GatorGood

UF | UNIVERSITY *of* FLORIDA
Information Technology

STRATEGIC GOALS FOR IT

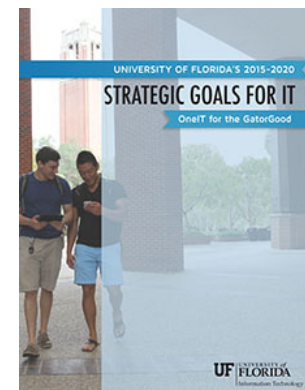## OneIT for the GatorGood

UNIVERSITY *of* FLORIDA

We seek to put in place exceptional services that facilitate UF's rise to top ten.

Charles E. "Charlie" Lane, Ph.D.
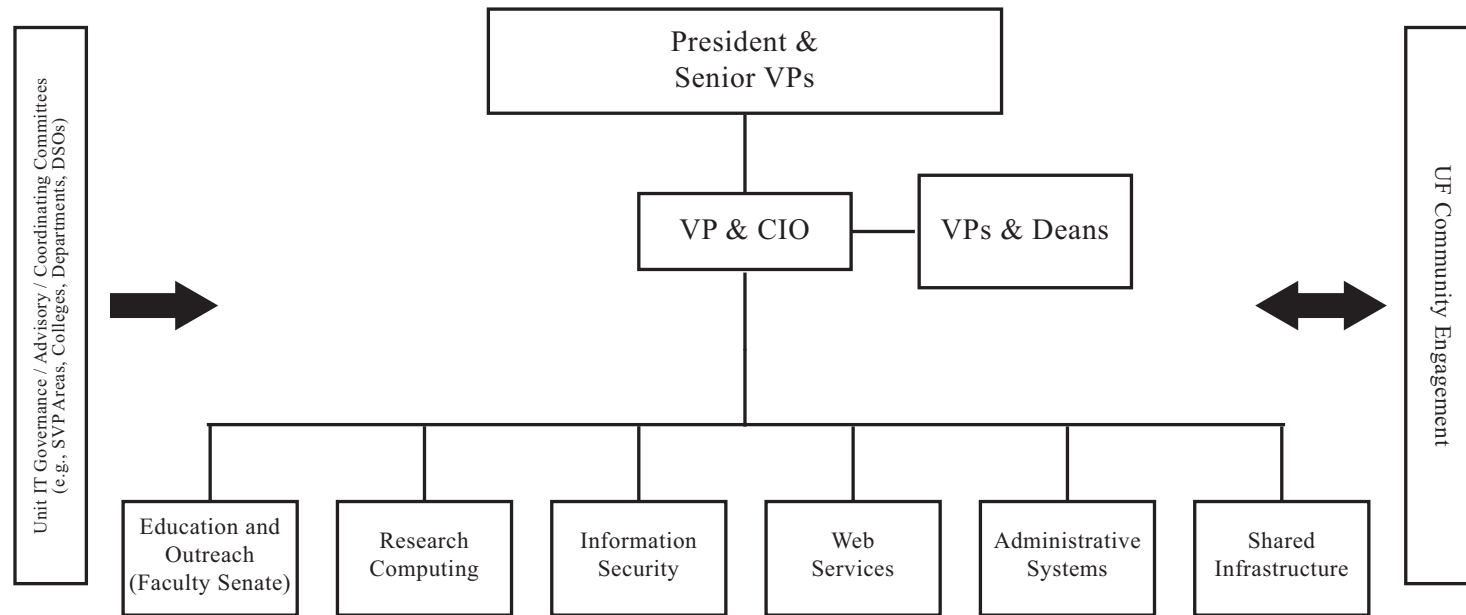*Senior Vice President and Chief Operating Officer*

WHAT'S INSIDE

To view the **University of Florida's Strategic Goals for IT 2015-2020** online or to learn more about UFIT's governance process, visit:

http://www.it.ufl.edu/vp-cio-office/strategic-plan

UF Information Technology Governance Overview

Unit IT Governance / Advisory / Coordinating Committees (e.g., SVP Areas, Colleges, Departments, DSOs)

President & Senior VPs

VP & CIO

VPs & Deans

UF Community Engagement

Education and Outreach (Faculty Senate)

Research Computing

Information Security

Web Services

Administrative Systems

Shared Infrastructure

UF Information Technology governance is a well-defined, transparent process. These topical advisory committees provide recommendations and guidance on policies, standards, and priorities in support of the university's mission and business goals. Information about the six advisory committees can be found at:

www.it.ufl.edu/governance/advisory-committees/

CIO's Welcome

The UF Information Technology (UFIT) team is dedicated to providing value-added technology services that enable the university community to serve its mission and stakeholders. This is part of our OneIT for the GatorGood mandate: to support university efforts for attaining a top-10 public university ranking. To do that, we must provide innovative and efficient IT services while simultaneously helping to transform the IT environment at UF.

Over the past 12 months, UFIT staff undertook an inclusive process to identify strategic goals and objectives for IT at UF. Strategic plans from our peer institutions were reviewed, interviews were conducted with senior leadership, focusgroups were held with faculty, staff and students, and future trends for IT in education and industry were explored. The reports and findings were used to identify current and emerging IT needs at the university, as well as recognize opportunities for innovation that will improve mission-related outcomes. In collaboration with UFIT's governance, this set of strategic goals and objectives was created. I firmly believe that achieving the goals outlined here will have a profound impact for UF and for the greater community we serve.

Go Gators!

ELIAS G. ELDAYRIE

Vice President &
Chief Information Officer

Education and Outreach

ADVANCE THE UNIVERSITY OF FLORIDA TO THE FOREFRONT OF TEACHING

Plan Focus:

- Provide effective IT services that improve learning outcomes and reduce the cost of instruction
- Establish an innovative continuous improvement model that encourages and enables new and improved modes of instruction
- Increase opportunities for access to existing and new knowledge acquisition

GOAL #1: CREATE A TECHNOLOGY-SUPPORTED ECOSYSTEM

Objectives:

- Learning content repository
- Content delivery system (Course Management System)
- Learning analytics tools

GOAL #2: TRANSFORM LEARNING SPACES

Objectives:

- Improve quality of service for traditional classrooms
- Transform learning spaces to support new pedagogical models (e.g., flexible, active, flipped)
- Increase the availability of active learning spaces

GOAL #3: MOBILIZE TEACHING & LEARNING SERVICES

Objectives:

- Virtualize computer teaching laboratories
- Implement platform agnostic teaching & learning services
- Encourage collaboration and participation using mobile devices

GOAL #4: OFFER SERVICES FOR RICH MEDIA PRODUCTION

Objectives:

- Provide software tools for self-generated rich media content
- Make service facilities available for self-generated rich media
- Expand current services

GOAL #5: PROVIDE MULTIPLE TECHNOLOGY TRAINING CHANNELS

Objectives:

- Expand self-service training resources
- Take face-to-face training to stakeholders
- Leverage existing cloud-based training services

GOAL #6: ENGAGE WITH LEADING INSTITUTIONS AND ORGANIZATIONS TO FOSTER PARTNERSHIPS AND COLLABORATION

Objectives:

- Leverage partnerships with Internet2 and UNIZIN to increase technological and business gains for the university
- Utilize the higher education analytics available through EDUCAUSE, and advance the UFIT relationship with this organization
- Increase dialogue and seek new opportunities with leading higher education, hardware, and software vendors

GOAL #7: SUPPORT AND ENCOURAGE AN INNOVATIVE ENVIRONMENT AND CONTINUOUS IMPROVEMENT

Objectives:

- Develop best practices and standards where appropriate
- Generate opportunities for faculty to leverage new developments in pedagogy
- Utilize metrics and analytics to assess and evaluate effectiveness of IT services for teaching and learning

Name
Brittani Kirkland

Hometown
La Crosse, FL

Major
Animal Science – Equine Industry Specialization

University Affiliations
UF Block and Bridle, Gator Collegiate Cattlewomen, National Society of Collegiate Scholars, CRU Specialization

"No longer using books as the key source for knowledge, UF classrooms provide online databases, apps, and other technological devices to enhance my learning experience. Using classroom technology at UF has allowed me to gain greater knowledge, not only in my major but also in the field of technology, better preparing me to enter the technologically-driven work force."

Research Computing

Plan Focus:

- Improve opportunities, discipline-diversity, and collaboration for research and scholarship
- Increase competitiveness in securing external funding
- Enable radical collaboration between UFIT personnel, computational faculty, and the research community across UF and beyond for research and teaching purposes
- Actively seek collaboration between the infrastructure providers, researchers, and teachers to optimize resource usage and project outcomes
- Increase accountability of UFIT staff, especially in support of research computing

GOAL #1: EXPAND HPC, DATA STORAGE, AND RESEARCH NETWORK CAPACITY, PERFORMANCE, AND USABILITY

Objectives:

- Build a nimble local cloud from existing infrastructure
- Integrate public cloud services
- Ensure security of RC assets and information privacy

GOAL #2: ENHANCE AND EXPAND SERVICES THAT USE HIGH-PERFORMANCE COMPUTING, DATA STORAGE AND NETWORK RESOURCES

Objectives:

- Develop usable services that facilitate access to research computing resources
- Enable access to advanced applications for research using virtualization technologies
- Create a suite of self-provisioned services for common research applications
- Provide support through training and collaboration to allow projects to scale up to using national resources and the public cloud infrastructure

Name
Aaron Beveridge

Hometown
Mansfield, OH

Major
Ph.D. Candidate - English

University Affiliations
Digital Humanities Working Group

"I have worked closely with Research Computing at UF to move our open source data mining software from a small server in my home to the cloud server space that Research Computing set up specifically for data projects similar to ours. RC's cloud servers have drastically increased the types and amount of data we can mine. I collaborate closely with graduate students from other universities, and the access to advanced cloud computing resources at UF is second to none."

GOAL #3: IMPROVE FACULTY AWARENESS AND ACCESS TO USE OF RESEARCH COMPUTING SERVICES

Objectives:

- Develop training programs on rich and powerful research applications
- Provide user-centric, just-in-time tutorials, and user manuals on Research Computing services
- Deliver responsive support and actively pursue opportunities for collaboration between infrastructure and service providers, faculty scholars, and researchers
- Support curation and analytics for rich and complex data

Information Security and Risk Management

LEVERAGE IT RISK MANAGEMENT AND INFORMATION SECURITY PRACTICES TO REDUCE ADVERSE IMPACTS TO THE INSTITUTION

Plan Focus:

- Reduce risk to the institution, and its faculty, staff, and students by protecting the confidentiality, integrity, and availability of information assets

- Educate faculty, staff, and students concerning information security policies, standards, and data protection practices through appropriate training

- Establish enforceable policies in order to maximize compliance with laws, regulations, and generally accepted practices

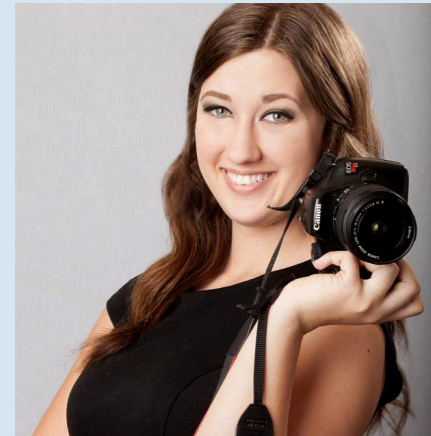### GOAL #1: INTEGRATE BUSINESS AND INFORMATION SECURITY PRACTICES

Objectives:

- Integrate risk-based decision making into business process lifecycles
- Cultivate environment where security governance is fully integrated with university business practices
- Facilitate improved decision-making and accountability through the collection, analysis and reporting of relevant security program and operational metrics

GOAL #2: INCREASE AWARENESS OF SECURITY RELATED POLICIES AND STANDARDS

Objectives:

- Establish enforceable policies to comply with laws, regulations, contracts, and generally accepted practices
- Foster environment where accountability for protecting information rests with the information owner
- Promote a people-centric security strategy that focuses on user accountability

Name
Rachel Crosby

Hometown
Las Vegas, NV

Major
Journalism

University Affiliations
Journalism College Ambassadors, Dean's Student Advisory Council, Society of Professional Journalists, National Press Photographer's Association

"Each semester, I'm exposed to state-of-the-art resources like our Innovation News Center that help me hone my multimedia skills and shape my digital media career. From participating in classroom Skype interviews with famous athletes to creating tablet magazines from scratch, the University of Florida provides journalism students with the right technology resources."

GOAL #3: ENHANCE INFORMATION SECURITY ANALYTICS TO BETTER PREVENT, DETECT, RESPOND, AND PREDICT THREATS TO UF'S INFORMATION SYSTEMS AND DATA

Objectives:

- Minimize attack surface area
- Reduce threat exposure time
- Investigate, remediate, and establish preventative measures
- Utilize intelligence to prevent potential threats

Administrative Systems

Name
Reggie Warren

Hometown
Kissimmee, FL

Major
Health Science Pre-Public Health

University Affiliations
The Black Student Union, The Florida Cicerones, Streetlight, The Freshman Leadership Council, The Leadership Development Institute

"I think it is amazing that we have an information technology leadership team at UF that is so forward thinking and genuinely invested in the student and faculty experience."

Plan Focus:

- Improve decision-making at all levels of UF
- Enhance and streamline IT-supported business processes
- Provide services and shared IT infrastructure to meet the needs of central administrative systems, distributed IT departments, and end-users
- Evaluate and implement new technologies in support of innovative applications that enable new business opportunities

GOAL #1: MODERNIZE LEGACY SYSTEMS AND UNDERLYING TECHNOLOGY

Objectives:

- Modernize student system
- Update faculty administrative systems (Research, Tenure & Promotion, Teaching and Learning)
- Modernize staff administrative systems

GOAL #2: IMPROVE USER EXPERIENCE

Objectives:

- Apply usability principles to all applications
- Mobilize both apps and applications
- Provide additional support for BYOD/BYOE

GOAL #3: PROVIDE PERFORMANCE ANALYTICS TO CLIENTS

Objectives:

- Offer value related analytics, metrics, and real-time performance indicators
- Provide a Business Intelligence (BI) dashboard
- Facilitate data/information sharing and decision-making

GOAL #4: COLLABORATE WITH BUSINESS UNITS TO IMPLEMENT BUSINESS PROCESS MANAGEMENT

Objectives:

- Define business architectures
- Establish Key Performance Indicators (KPIs)
- Define Service Level Agreements (SLAs)

Rationalizing and Optimizing IT

PROVISION AND OPERATE EFFECTIVE AND EFFICIENT SHARED IT INFRASTRUCTURE

Plan Focus:

- Provide shared IT infrastructure to meet the needs of central Administrative Systems, distributed IT departments, and end-users

- Consolidate and standardize IT infrastructure to reduce costs through economies of scale

- Replace, retire, or update IT infrastructure and services at regular lifecycles to assure reliability and performance

- Evaluate and implement new technologies in support of innovative applications

GOAL #1: CREATE A HIGH-PERFORMANCE INFRASTRUCTURE THAT IS RESPONSIVE, AGILE, AND SCALABLE TO MEET UF NEEDS

Objectives:

- Expand and enhance IT infrastructure capacity in response to increasing demand
- Implement self-provisioned services (i.e., a self-service dashboard)
- Adopt agile methodologies that respond to faculty, staff, students and administrative needs
- Provide metrics and real-time performance indicators to support value related analytics

GOAL #2: ADOPT NEW TECHNOLOGIES AND STANDARDS THAT LEAD TO IMPROVED SERVICES AND HIGHER EFFICIENCY

Objectives:

- Identify key drivers and use cases, and deploy software defined and virtualized networks opportunistically
- Adopt and enforce current standards
- Optimize mix of on-premise, hosted, and cloud services

Name
Chloe Finch

Hometown
West Palm Beach, FL

Major
Journalism

University Affiliations
Society of Professional Journalists, the University Press of Florida, WUFT News, and Prism: The Honors College Magazine

"I spend most of my day plugged into multiple devices – my smartphone to Tweet at professors or check the RTS schedule, my tablet to read news and check email, and my laptop to complete homework assignments. UF provides exceptional services to accommodate a student's need for mobile connectivity on campus."

GOAL #3: RATIONALIZE COMPUTING AND NETWORK INFRASTRUCTURE

Objectives:

- Implement 'common core' network services
- Standardize baseline wireless services
- Unify the campus's collaborative communication services
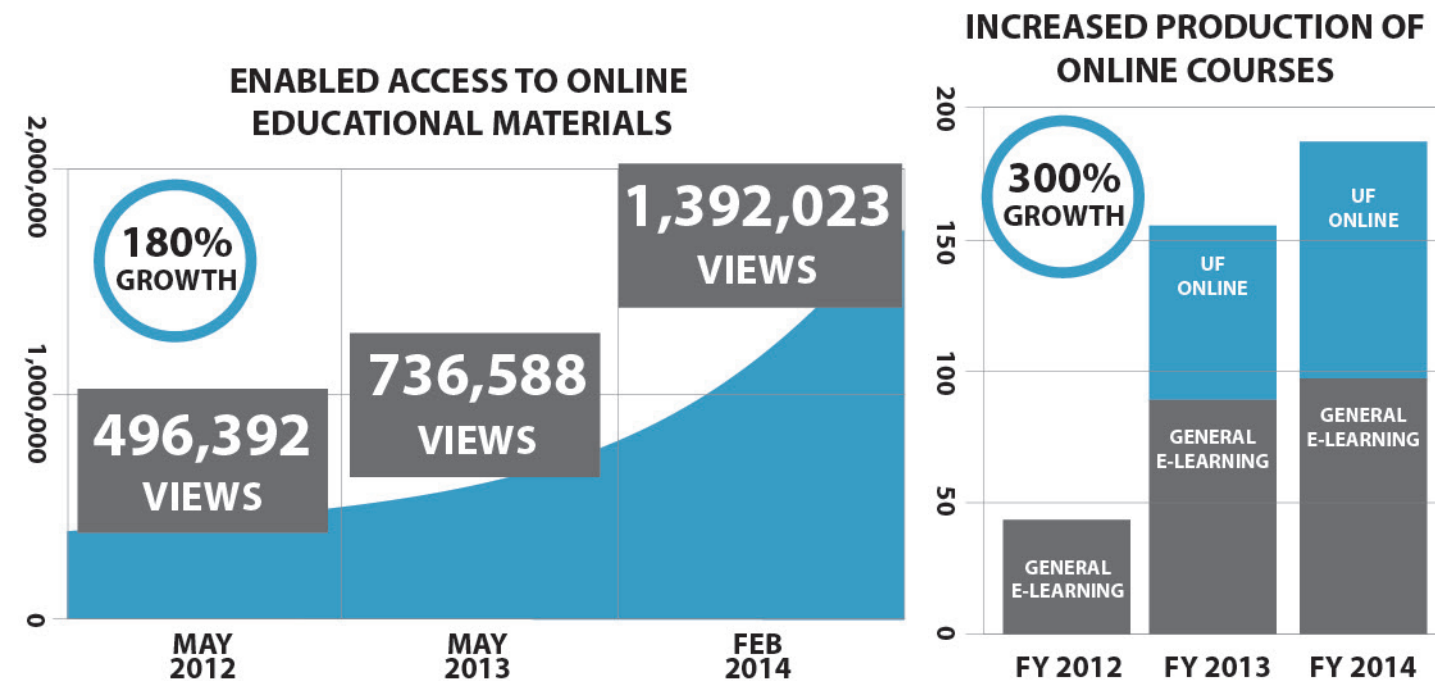
Advancing the University's Mission

SUPPORTING TEACHING AND LEARNING

Pedagogy will drive the role of UFIT pertaining to innovation and continuous modernization of education and training. UFIT will continue to invest in technologies that allow instructors to deliver quality education. Advances in learning sciences is improving knowledge on how people learn. Technology makes it possible to act on this knowledge, producing better educational outcomes and reducing cost.

We are increasingly living in a virtual world. Recent data from EDUCAUSE shows that students now come to campus with an average of three different mobile computing devices. Delivering the online academic and administrative services that fully render on the variety of devices in use at UF is the challenge: advancing the technology and support necessary to enable world-class teaching and learning is the goal. To help grow the university, UFIT identified the resources required to expand online teaching delivery, powering UF Online, distance, and extension education; as well as increased production of courses for use in traditional undergraduate programs.
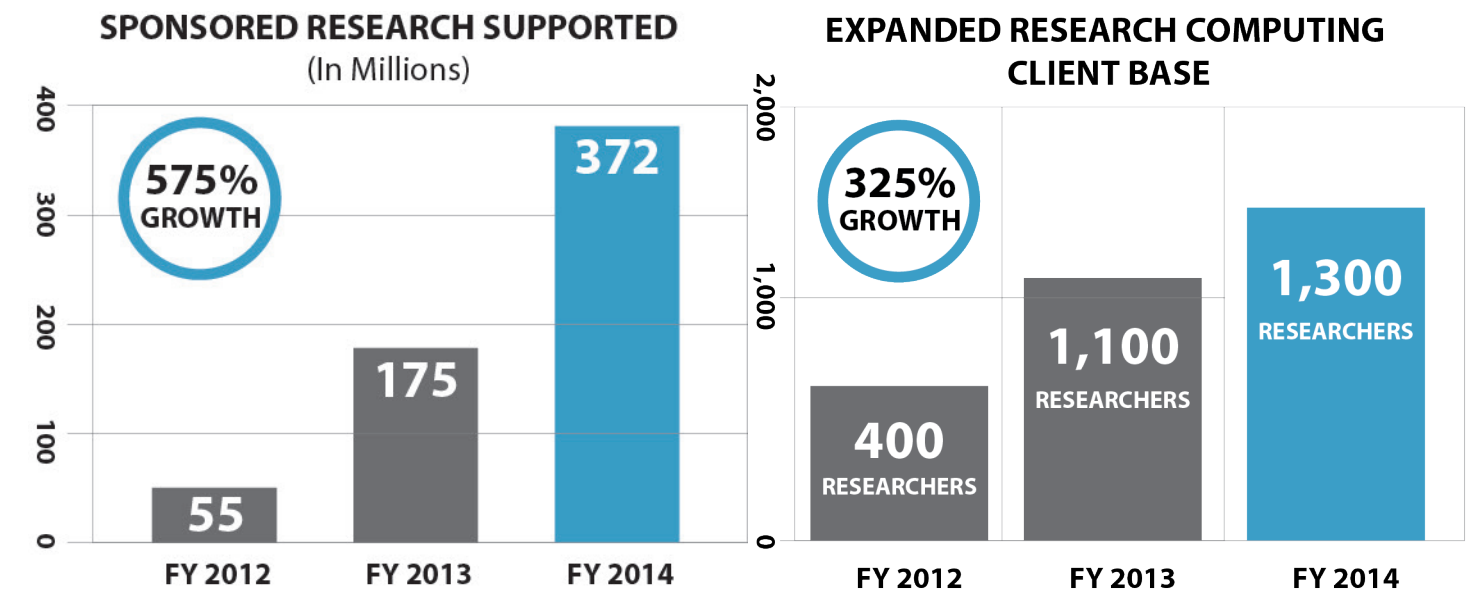
ENABLING RESEARCH

New knowledge is a powerful engine for change and transformation. UFIT will continue to invest in services that enable fundamental scholarship and research, as well as applied research and innovation. The quality of a research university is mirrored by the quality of its faculty. State-of-the-art technology services will allow UF to continue to attract and retain the best faculty and students to compete, cooperate, and collaborate at a global scale.

Supporting the UF research community with an expansion of systems and computational and consulting services was a priority of the *University of Florida's Strategic Plan for IT: 2011-2014*. The 2011-2014 strategic planning cycle included the launch of HiPerGator, the state of Florida's first supercomputer; and deployment of myInvestigator, an online reporting tool that greatly reduced faculty time needed for the administration of their sponsored research. The results of this commitment? 325% growth in the number of faculty utilizing UF's research computing facilities.

ENABLED ACCESS TO ONLINE EDUCATIONAL MATERIALS

- **180% GROWTH**
- 496,392 VIEWS — MAY 2012
- 736,588 VIEWS — MAY 2013
- 1,392,023 VIEWS — FEB 2014

INCREASED PRODUCTION OF ONLINE COURSES

- **300% GROWTH**
- FY 2012: GENERAL E-LEARNING
- FY 2013: GENERAL E-LEARNING, UF ONLINE
- FY 2014: GENERAL E-LEARNING, UF ONLINE

SPONSORED RESEARCH SUPPORTED (In Millions)

- **575% GROWTH**
- FY 2012: 55
- FY 2013: 175
- FY 2014: 372

EXPANDED RESEARCH COMPUTING CLIENT BASE

- **325% GROWTH**
- FY 2012: 400 RESEARCHERS
- FY 2013: 1,100 RESEARCHERS
- FY 2014: 1,300 RESEARCHERS

Support for Teaching, Research, and Outreach Activities

ENGAGING THE COMMUNITY

UF's Institute of Food and Agricultural Sciences (UF/IFAS) provides practical advice and support. Through IFAS outreach programs, the University of Florida provides science-based advice to improve the quality of life of all Florida citizens. Technology plays an important role in delivering this information through online systems like EDIS, FAWN, Subscribe, and mobile apps for agriculture, youth and family programs, tree identification, and animal identification. Connectivity to all of Florida's 67 county extension offices is made possible through a Wide Area Network (WAN), supported by UFIT.
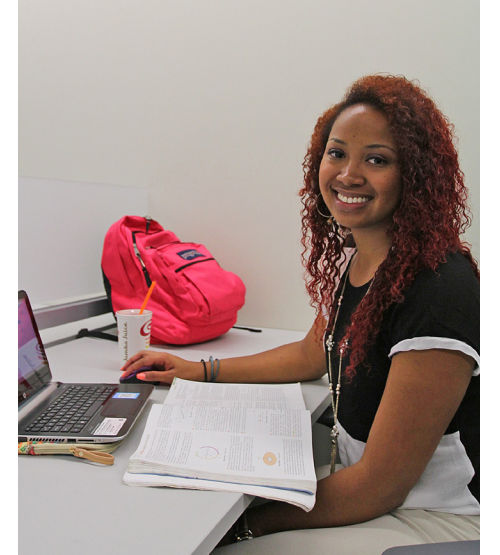

CLINICAL OUTREACH

Clinicians at UF are able to produce neuro images (patient brain scans) in less than 24 hours, a process that would take up to five months without HiPerGator and its BIGDATA capabilities. Using tools like this, clinicians and researchers at UF's Cognitive Aging and Memory / Clinical and Translational Research Program can advance patient care and scientific knowledge by conducting studies such as the influence of HIV on the brain.

OPTIMIZING ADMINISTRATIVE SYSTEMS

UFIT engages in the responsible use and stewardship of information resources and administrative systems in a way that takes a full and balanced account of the interests of the university. The enterprise-wide systems managed by UFIT undergo a constant evaluation so that faculty, students, and staff are enabled to conduct research, teach and learn, and take care of university business needs with services that ensure administrative and economic efficiency. UFIT strives for collaboration, transparency, and accountability of all centrally-supported administrative systems.

MANAGING RISK

UFIT ensures the confidentiality, integrity and availability of information. Towards this purpose, UFIT is committed to protecting information and information systems from unauthorized access, use, disclosure, disruption, modification, or destruction.

PROVIDING HIGH QUALITY INFRASTRUCTURE

UFIT manages the computing and network infrastructure that support our academic, extension, and clinical mission. Commonly-shared infrastructure improves the quality of delivered services and increases operational efficiencies. It also reduces the risk of data and system exploitation and provides the tools and facilities required to allow the UF community to be effective in their roles.