

2010–2011
Institutional Effectiveness
Quality Improvements
Success Stories

August 29, 2011



Improvements: President's Division

Diversity Initiatives

Assessment method: Documented the involvement of UCF colleges and SDES in Curriculum transformation activities via the Diversity Track of the Faculty Summer Development Conference.

Results: There were 30 participants in the 2007 Diversity Track of the Summer Faculty Development Conference representing the existing UCF colleges and SDES. These individuals produced the Declaration of Interdependence, a document that identified strategies for enhancing inclusive education across the curriculum. It also influenced the development and outcomes of Faculty Development Summer Conference Diversity Track activities in 2008, 2009, and 2010.

Improvements: President's Division

Diversity Initiatives (continued)

Action taken: An adaption of Bloom's Taxonomy of Learning by Dr. Cristine Clifford Cullinan, from the University of Oregon, was used to develop 21 cultural competencies for UCF undergraduate students in cognitive, affective, and skill-building domains. Faculty members constructed learning objectives, educational strategies, and assessment procedures using elements of Bloom's Taxonomy.

Improvement: Faculty members gained the knowledge and skills to construct learning objectives and implement inclusive teaching strategies using a widely accepted educational model. Also, pairing a learning model to cultural competencies seems to be a unique feature that is exclusive to diversity education at UCF and has generated interest by diversity educators across the nation.

Improvements: College of Business Administration

Sports Business Management M.S.M.

Assessment method: Essay exam was used to assess students' understanding of the material and application of learning to professional sports business areas. Students read *Why Football Represents America* and responded by writing an additional 'chapter' that they felt was missing.

Results: Based on rubric- Mean 84% (Range 75%-100%), N=24. 75% (N=18) scored 85% or better (did not meet the 80% target).

Action taken: The instructor continued the use of a standard outline employed in 2009-2010, limited paper length and employed other instructional strategies to help students improve their writing.

Improvement: A rubric was created in 2007-2008. Substantial student performance improvement: 45% in 2007-2008, 68% in 2008-2009, and 75% in 2009-2010 scored 85% or higher.

Improvements: College of Engineering and Computer Science

Electrical Engineering B.S.

Assessment method: Assessed students' ability to apply knowledge of mathematics, science, and engineering by performing linear circuit analysis using Laplace transformations. Target- 70% of students will achieve a passing score of 50% or higher on average of: Question 2 of Final Exam, Mid Term Exam 1 all questions.

Results: Target not met. 40% of the students met the outcome.

Action taken: Instructor included remedial math work before or after the class and gave more example problems during the class. The gap in learning was not related to linear circuit analysis but rather that students were not proficient in differential equations to analyze Laplace transformations.

Improvement: Students' performance improved. 79% met or exceeded the outcome.

Improvements: College of Engineering and Computer Science

Computer Engineering B.S.

Assessment method: Questions on homework two and midterm exam were used to measure students' ability to perform arithmetic operations (integers, floating point numbers and Booth's algorithm) for computer systems. Target- 70% of students will score 70% or higher.

Results: 90% of students met or exceeded the target. However, the Curriculum Oversight and Review Committee recommended that the instructor add more reviews and spend more time covering concepts related to integers, floating point numbers and Booth's algorithm.

Action taken: Instructor added more review exercises.

Improvement: Students' performance improved. 95% met or exceeded the target.

Improvements: College of Engineering and Computer Science

Computer Science B.S.

Assessment method: Questions on homework and exam were used to measure students' ability to design, implement and evaluate a computer-based system by applying best practices in software development processes, methods, and tools. Target-70% of students will score 70% or higher (UML skills).

Results: Less than 70% of students met the target.

Action taken: Instructor added specific homework assignments and exam questions that focused on UML skills.

Improvement: Students' performance improved. 75% met or exceeded the target.

Improvements: College of Engineering and Computer Science

Information Technology B.S.

Assessment method: A rubric was used to evaluate students' human-technology interaction projects to measure students' ability to develop computer-based applications. Target: All students will score 80% on SQL programming.

Results: 68% of students met the target.

Action taken: For students to have the opportunity of extensively practicing SQL programming, the instructor gave students SQL programming projects earlier in the semester starting with Lab 6 in the 7th week instead of at the end of the semester.

Improvement: Students' performance improved. 83% met or exceeded the target.

Improvements: Administration and Finance

Facilities Operations

Assessment method: Waste audits of individual high-use buildings throughout the year; weekly reporting of all solid waste and recycling weights.

Results: Achievement of 28.6% recycling rate.

Action taken: Enhanced recycling program with individual recycling bins, increased the number of public recycling containers, added construction debris collection, held competitions, and partnered with student groups to assist student initiatives.

Improvement: Almost reached the state mandated goal of 30% recycling. This was the fourth consecutive year of significant improvement, rising from 17% in 2008-2009.

Improvements: Administration and Finance

University Police

Assessment method: Florida Department of Health Sexual Violence Prevention Program Grant obtained by Victim Services to provide “Unless There’s Consent “ an online sexual violence prevention and bystander intervention program. 2010-2011 voluntary participation for freshmen and transfer students. 5816 students participated, 4789 completed the program which takes approximately 2 hours. Used a pre-post to assess gain in knowledge. Target set to baseline.

Results: 30% of respondents showed gains in knowledge for Sexual Violence prevention and bystander intervention.

Action taken: Program will be mandatory for 2011-2012 freshmen and transfer students.

Improvement: Established a target of 75% respondents showing gains in knowledge on the post test.

Improvements: Administration and Finance

Human Resources

Assessment method: Tracked 893 Hire ePAFs (electronic Personnel Action Forms), or 15% of the total ePAFs, to identify ePAFs placed on “hold” for 30 days or longer.

Results: HR identified the completion of the I-9 form as the major reason hire ePAFs were placed on “hold.”

Action taken: Corrective measures were implemented, which included, I-9 FAQs, I-9 checklist, I-9 web course and expanded e-Verify system.

Improvement: ePAFs placed on hold create problems for employee, department and UCF. Failure to give the I-9 the attention it demands, can cost thousands of dollars in over or under payments and fines. HR accomplished the following:

- Identified root causes of ePAF delays
- Reduced the number of Hire ePAFs placed on hold
- Reduced errors that can cause over/under payments
- Improved customer service to the UCF community

Improvements: Administration and Finance

Human Resources

Assessment method: Collected and analyzed baseline data on 337 medical and parental leave requests received from more than 35 different UCF colleges and departments.

Results: Family Medical Leave Act (FMLA) recommends 15 days as the standard time for submitting documentation. Data collected indicated 30% of all leaves were submitted after the 15 day recommendation.

Action taken: HR conducted a focus group to improve communication and plan specific FMLA targeted to the key issues identified.

Improvements: Administration and Finance

Human Resources (continued)

Improvement: The complexity of FMLA, coupled with the liability to the University, supports the need for improvement in business processes between HR and UCF departments. HR accomplished the following:

- Developed and conducted multiple FMLA workshops
- 14% increase in the number of leaves submitted on time
- HR continues to search for solutions that will streamline and improve systems for the UCF community.

Improvements: Administration and Finance

Sustainability and Energy Management

Assessment method: Measured and verified energy efficiency performance by using the whole building interval power meters located in each building utilizing the International Performance, Measurement and Verification Protocol (IPVMP).

Results: Energy consumption per square foot was reduced by 27% compared to UCF's baseline of fiscal year 2005-2006.

Action taken: Energy efficiency continues to be improved through ongoing building commissioning, lighting retrofits and conservation competitions.

Improvement: The University benefitted from cost savings during a challenging economic environment and reduced its environmental impact in accordance with President Hitt's commitments to the American College & University Presidents' Climate Commitment. The reductions in environmental impacts will also contribute to a better quality of life for the University and its community. All project savings since 2008 were combined in an accrued running total for energy and cost savings. It is estimated that UCF has saved close to \$1.8 million dollars.

Improvements: College of Arts and Humanities

Interactive Entertainment M.S.

Assessment method: Assessed students' abilities to program from plain English prompts using proper gaming algorithms.

Results: 8 of 10 students met the 80% or higher combined score on all assignments

Action taken: It was determined that pure grades were not indicative of a true measure and a rubric was developed.

Improvement: 12 of 12 students met the 80% or higher combined score on all assignments when graded via the new rubric

Improvements: College of Sciences

Anthropology B.A.

Assessment method: Assessed students gain in knowledge related to archaeological principles (for example interpretation of the past) on the anthropology exit exam.

Results: 71% of the questions were answered correctly.

Action taken: Revised teaching methods and course content to better prepare students.

Improvement: Students performance improved. A total of 83 graduating seniors completed the Anthropology Department Exit Exam in the 2009 – 2010. Students taking the exit exam responded correctly to 75% of the questions related to the interpretation of the past.

Improvements: College of Health and Public Affairs

Criminal Justice B.S./B.A.

Assessment method: Graduating seniors survey and community partners survey were used to evaluate students' understanding of diversity issues and the use of ethical perspectives and judgments in applying knowledge to related problems and changing fact situations.

Results: Over 85% of graduating seniors and 100% of community partners employing UCF Criminal Justice majors agreed or strongly agreed that the students leaving the program have an understanding of diversity issues.

Action taken: Increased the number of sections of Criminal Justice Ethics course. Added a direct measure of ethical scenarios in student papers to be evaluated by a faculty panel.

Improvement: All student papers (100%) demonstrated a clear understanding of diversity issues and the use of ethical perspectives and judgments as assessed by the faculty panel applying the rubric. Also, 92.1% (B.S.) and 94.2% (B.A.) of graduating seniors and 93.1% of community partners employing UCF Criminal Justice majors, agreed or strongly agreed that the students have an understanding of diversity issues.

Improvements: Strategy, Marketing, Communication, and Admissions

Institutional Knowledge Management - Institutional Research

Assessment method: Survey sent out to invite students to update race or ethnicity in response to new federally mandated coding choices.

Results: 195 students updated race/ethnicity in direct response to survey invitation.

Action taken: 11,887 emails were sent in 3 waves to students currently declaring 'Asian' race to alert them to the new race choices which include 'Pacific Islander'; 4,762 emails were sent in 3 waves to students with an 'Undeclared' race to alert them to the new choices which include 'Multi-racial'.

Improvement: 30% decrease in students with an 'Undeclared' race from Fall 2009 to Fall 2010.

Improvements: Strategy, Marketing, Communication, and Admissions

Operational Excellence and Assessment Support

Assessment method: Conducted individualized training and consultations to propagate awareness of the usefulness of assessment in improving student learning and operations. A log was maintained.

Results: A total number of 70 consultations were conducted at FCTL and Research Pavilion for faculty and staff members.

Action taken: Customized consultations and workshops consisting of hands on collaborative learning activities with the new IE Assessment Plan and IE Assessment Results rubrics were implemented to deepen the consultative and mentoring role of the DRC reviewers and to deepen inter-rater reliability in the application of the rubric.

Improvement: Over 200 training and consultation sessions were conducted for the year 2009-2010 far exceeding the 70 sessions provided in 2008-2009. Sessions helped to establish a collaborative peer mentoring model.

Improvements: Strategy, Marketing, Communication, and Admissions

Office of News & Information

Assessment method: Office's mission is to enhance the reputation of the university via media. The Media Reputation Index (MRI) measured the quality of media placements in 2009-2010. Target-maintain a score of 6.1 out of 10

Results: Target exceed: 6.83 out of 10

Action taken: Although the target was met, the MRI was time consuming and did not give insight about meeting specific media goals.

Improvement: Developed a new tracking system called "Notable Publications." Specific publications were selected to ensure quality. The tracking method is better at determining if specific outcomes are being met and provides information related to quality.

Improvements: College of Arts and Humanities

Musical Theatre B.F.A.

Assessment method: Before graduating, all students complete a written exit critique in response to viewing a live theatrical production. The critique must include sections on History/Script Analysis, the plot, the production aesthetics, the audience, and a conclusion that offers an opinion. The paper is evaluated by three faculty members on: evidence of research, analysis of aesthetics, clarity and maturity of expression, use of theatre discipline-specific vocabulary, writing mechanics, and MLA format. To achieve an overall pass, students must pass every grading section (as evaluated using a rubric) by at least two of the three faculty evaluators. If a student fails the exit critique they must submit a new critique in the following semester.

Results: Several years ago, students failing the exit critique was quite high—consistently between 80 and 100%.

Improvements: College of Arts and Humanities

Musical Theatre B.F.A. (continued)

Action taken: Two major changes were made by faculty members.

- In the 2006 catalog year, passing the exit critique became a requirement for graduation.
- The faculty also decided that in order to give the students the best opportunity for success, they should have the opportunity to practice the necessary skills to succeed at the assessment.
 - A major revision to THE 2020 included detailed instruction on how to write this type of paper with no less than four required papers that use the exit critique guidelines.
 - Other faculty members in the Musical Theatre Program also adopted the exit critique format for papers written for their courses. This gave the students ample opportunity throughout their program of study to practice and receive feedback on the required competencies.

Improvement: The rate of failure in fall 2009 dropped to 46% and in spring 2010 to 19%.

Improvements: College of Sciences

Political Science M.A.

Assessment method: Used the Master's Thesis exam to demonstrate appropriate communication skills for all graduating students.

Results: Based on a rubric, 92% of the thesis students obtained a 4 (of 5) or higher for written communication and 83% of the students obtained a 4 or higher for oral communication (N = 12).

Action taken: While the thesis measure was successful, it was decided to test these measures earlier on in the program with term papers written in seminar courses.

Improvement: Results to be seen in the next cycle

Improvements: Provost B

Office of International Studies

Assessment method: To promote faculty and student research outside of the USA, a target was set to facilitate at least four new collaborations between UCF Faculty and partner institutions outside of the USA.

Results: Four collaborations as part of the Global Classroom Initiative took place. While target was met, there were still difficulties in properly distributing information about potential partnerships to faculty members.

Action taken: A simple website was created to facilitate faculty access to collaborative information.

Improvement: 16 new collaborative meetings took place resulting in three partnership agreements.

Improvements: Provost B

Office of Experiential Learning

Assessment method: To complete national engagement and service-learning award recognition applications, it was necessary to call over 50 different UCF departments who did not have all the data needed or the data was in different formats.

Results: The process was inefficient, the results difficult to compile and sometimes questionable, and overall information about engagement at UCF was relatively unavailable.

Action taken: In a partnership with OEAS, Office of Experiential Learning recently created an online Engagement Survey to capture and report curricular and co-curricular engagement activities across campus and their impact on the university and the community.

Improvement: This survey creates a means to analyze, report, and appreciate the engagement activities produced by UCF faculty, staff, and students. It also provides consistent parameters for useful data collection and on-going data for national and local recognition, faculty research proposals, and interdisciplinary efforts.

Improvements: Student Development and Enrollment Services

Student Leadership Development

Assessment method: National Leadership Assessment.

Results: Results were poor for 1st year students. It was concluded that first semester students may have a lower score than the national average since the national average includes scores from freshmen to senior year students.

Action taken: Creation of a locally based pre-post test based on the Social Change Model.

Improvement: Savings of over \$8000 for the department and created the ability to base the SDES leadership philosophy on the Social Change Model of Leadership Development as a result of the assessment change.

Improvements: Student Development and Enrollment Services

Orientation Services

Assessment method: Pre, Mid, Post Self Evaluations, Observational Evaluations from Professional Staff and Student Coordinators.

Results: Based on the self and observational evaluations in 2009 areas were identified that hindered the success of the O-Team (i.e. communication, leadership style, etc.).

Action taken: Based on 2009 results, the spring semester peer education course was improved by adding more intentional activities, changing the order of topics and stressing the importance of each topic throughout the course instead of having the topics stand alone.

Improvement: At the end of 2010, a better dynamic between team members over the summer months and a better understanding of their strengths as campus leaders was found. In 2011, the course was revised again to include more sections on leadership development.

Improvements: Student Enrollment and Development Services

Career Services

Assessment method: A written quiz at the end of each in-house career education workshops was administered to measure employment readiness of students.

Results: 93% (51 out of 55) of students who completed quiz questions, mapped to learning outcomes, answered questions correctly. The response rate was 46% (55 out of 118).

Action taken: The Career Exploration workshops were revised to better address students' needs. In order to increase student response rate, the quiz was directly added into the Power Point presentation.

Improvement: 86% (178 out of 206) of students who completed quiz questions, mapped to learning outcomes, answered questions correctly. The response rate was 73% (208 out of 286).

Improvements: Student Enrollment and Development Services *Alcohol and Other Drug Prevention Program*

Assessment method: Monthly campus alcohol screenings were provided to students. Students were then able to get personalized feedback about protective behaviors.

Results: 929 students participated and 90% received feedback. 19% of 21 very high-risk drinkers followed up for a full assessment.

Action taken: To further enhance the screenings, information about protective behaviors was added to the feedback interview. The measure was changed to reflect the number of students endorsing at least one protective behavior.

Improvement: 80% of moderate drinkers, 72% of high-risk drinkers, and 64% of very high-risk drinkers endorsed and used a protective behavior (n = 126, 39, 9 respectively).

Improvements: College of Education

Art Education (BS)

Assessment method: Florida Teacher Certification Subject Area Examination for Art K-12. The target was 60% or higher on all 21 competency areas.

Results: All students scored at or above 60% in all competency areas except for Ceramics (57%), Fine Crafts (48%), and Photography (45%) (N = 20).

Action taken: To close the gap revealed by the certification exam, further instruction was added to topics pertaining to the three weak areas.

Improvement: The percentages for the sections in question increased to 60.3% (Ceramics), 63.8% (Fine Crafts), and 52.4% (Photography) (N = 18).

Improvements: Office of Research and Commercialization

Institute for Simulation and Training

Assessment method: Increase UCF's reputation of having high caliber faculty and research staff by supporting innovative research initiatives. The number of in-house research grants was tabulated mid-year. The target was three in-house grants.

Results: As of mid-year (2008-09), IST only awarded one faculty in-house grant which soon became a sponsored project.

Action taken: While the target was not met, IST researchers gave more than 80 presentations, lectures, and briefings. A "corporate culture" shift occurred related to information sharing resulted from the adoption of the one in-house grant.

Improvement: Four in-house research grants were awarded in 2009-2010.

Improvements: Office of Research and Commercialization

Florida Solar Energy Center

Assessment method: Compared the number certified systems, modules, and collectors from the prior year to measure the capability of the department's certification process.

Results: The number of certifications increased from 73 in 2007-08 to 251 in 2008-09. The maximum time to complete certification was 20 business days.

Action taken: While the growth was notable, other process improvements, equipment automation, and expansion plans were put in place to further increase output.

Improvement: The number of certifications increased from 251 in 2008-09 to 633 in 2009-10.

Improvements: Office of Research and Commercialization

Advanced Materials Processing & Analysis Center (AMPAC)

Assessment method: Developed technology in partnership with others, particularly Florida industry, and increased the national and international prominence of AMPAC using data from several sources.

Results:

- AMPAC faculty were funded by and/or collaborated with over 10 Florida companies, including several in the UCF Incubator and Research Park.
- AMPAC faculty collaborated with over 21 other universities and other educational institutions, including 10 in the USA, 4 in China, 1 in each of the following: UK, India, Japan, France, Germany, Poland, Australia.
- AMPAC faculty presented 75 papers at international conferences, chaired 9 technical sessions, and chaired or served on the program committee of 14 conferences.

Improvements: Office of Research and Commercialization

Advanced Materials Processing & Analysis Center (AMPAC) (continued)

Results:

- AMPAC faculty served in several capacities as editors and reviewers for over 30 international professional journals.
- The Materials Characterization Facility (MCF) had 159 internal UCF users (135 in 2009) and 27 external users (23 companies and 4 universities) (25 in 2009 - 19 companies and 6 universities).

Action taken:

- All faculty involved in developing strategic plan and assessment plan to assure buy-in and commitment for results.
- Stretch targets set for the measures compared to previous year.

Improvement: All results for this assessment measure were increased over the prior year.

Improvements: Office of Research and Commercialization

Nanoscience Technology Center (NSTC)

Assessment method: Increased the national and international prominence of the UCF NanoScience Technology Center using data from several sources

Results:

- Asst. Prof. Artëm E. Masunov was recognized with the International Journal of Quantum Chemistry Young Investigator Award.
- Research in assistive robotics by Asst. Prof. Aman Behal was featured on TV and in print including NSF News, Wired, Popular Science, and CNET. His work was also featured on TV stories that ran on Channel 13 News and UCF Knightly News.
- Asst. Prof. Manny Perez and his group have received attention for their work on ligands for cholera diagnostics from the National Institute of General Medical Sciences, the ACS Press Pacs, Central Florida Public Radio, and UCF News.

Improvements: Office of Research and Commercialization *Nanoscience Technology Center (NSTC)* *(continued)*

Results:

- The “Frozen Smoke” project of professors Lei Zhai, Saiful Khondaker, Sudipta Seal, and Quanfang Chen and postdoctoral associate Jianhua Zou was nominated for the first-ever Katerva Awards, described as a new kind of open-source ‘Nobel Prize’ for sustainability.
- Asst. Prof. Ming Su received the NSF’s most prestigious award for young investigators – the CAREER award.
- Assoc. Prof. Qun Huo founded a startup company, Nano Discovery Inc., to commercialize the new nanotechnology for an over-the-counter cancer test kit.

Action taken:

- All faculty involved in developing the NSTC strategic plan and assessment plan to assure buy-in and commitment to results
- Strong support for junior faculty from NSTC Director and senior faculty

Improvements: Office of Research and Commercialization *Nanoscience Technology Center (NSTC)* *(continued)*

Improvement:

- Several awards with international recognition received by NSTC faculty.
- Faculty published 125 manuscripts and 4 books and their publications had over 911 citations during the year.
- Several UCF awards received by NSTC faculty including TIP, RIA, Excellence in Mentoring Doctoral Students, and the UCF Excellence in Research Award from the Institutes and Centers.