

2011–2012  
Institutional Effectiveness  
Quality Improvements  
*Success Stories*

August 27, 2012



# Improvements: College of Engineering and Computer Science

## *Information Technology B.S.*

**Assessment method:** Embedded test questions were used to assess Object Oriented Programming and algorithm design concepts and principles on the final examination in COP 3330.

**Results:** 50% (46/92) of students in Fall 2009 (target was 100%) scored at least 70% on programming and algorithm design concept questions.

**Action taken:** The instructor implemented practice exams and help sessions on programming and algorithm design concepts and principles in the course.

**Improvement:** 81% (55/68) of students in Fall 2010 scored at least 70% on programming and algorithm design concept questions.

# Improvements: College of Engineering and Computer Science

## *Digital Forensics M.S.*

**Assessment method:** Embedded test questions were used to assess the concepts related to computer and networking technologies in Computer Forensics I course (CGS 5131).

**Results:** 64% (48/75) of students in 2009-10 (target was 100%) scored at least 70% on computer and networking technologies questions.

**Action taken:** The instructor provided tutorial materials on how to use computer tools.

**Improvement:** 72% (52/72) of students in 2010-11 scored at least 70% on computer and networking technologies questions.

# Improvements: College of Engineering and Computer Science

## *Industrial Engineering Ph.D.*

**Assessment method:** Graduates will be able to conduct high-quality, doctoral research as evidenced by their demonstrated results, dissertations, publications, and technical presentations. At least 90% of all doctoral students will submit a journal paper to an appropriate refereed journal.

**Results:** 33% (2/6) of PhD students submitted a paper to a refereed journal (target was 90%) in 2009-10 which were subsequently accepted, 2/2 (100%).

**Action taken:** Results were discussed with faculty and the importance of publications stressed. Faculty also discussed requiring a journal article submission prior to graduation but no consensus was reached.

**Improvement:** 50% (5/10) of PhD students submitted a paper to a refereed journal (target was 90%) in 2010-11, and 4/5 (80%) submissions were accepted.

# Improvements: College of Nursing

## *Nursing B.S.N.*

**Assessment method:** Students in the nursing program are expected to use critical thinking as the basis for professional nursing practice. Students will score 75% or higher on a Proposal Paper and a Fact Sheet Project in the course Healthcare Issues, Policy, and Economics (NUR 4837). The other measure of this skill comes from comparing the group mean of the Critical Thinking Assessment ATI exam to the group mean of the nation.

**Results:** All 223 students who took this course during the school year scored 75% or higher on a Proposal Paper and a Fact Sheet Project. For the four groups that took the Critical Thinking Assessment ATI exam (Summer 2009-Accelerated, Summer 2009-Cocoa Campus, Summer 2009-Daytonal Campus, and Spring 2010-Main Campus), the group means were 79.3%, 75.3%, 77.1%, and 77.4% respectively. The mean scores for each campus cohort well exceeded the national mean of 70.3%. Thus, students are clearly demonstrating an exceptional ability to think critically across campus locations.

# Improvements: College of Nursing

## *Nursing B.S.N. (continued)*

**Action taken:** The assessment committee decided to use the same measures to determine whether the observed student learning performance holds for another cohort year.

**Improvement:** Of the 245 students who took NUR 4837 during the school year, 243 (99%) met the 75% or higher criterion for the Proposal Paper and Fact Sheet Project. For the four groups that took the Critical Thinking Assessment Exit exam (Summer 2010-Accelerated, Summer 2010-Cocoa Campus, Summer 2010-Daytonal Campus, and Spring 2011-Main Campus), the group means were 79.1%, 78.0%, 76.6%, and 77.9% respectively. Again, the mean scores for each campus cohort well exceeded the national mean of 70.3%. The Cocoa Campus score made a notable increase in the mean score.

# Improvements: College of Science

## *Political Science M.A.*

**Assessment method:** Students will demonstrate mastery of advanced research techniques and data analysis. Three out of four (75%) students taking comprehensive examinations will score a mean of "4" or higher on a rubric 1-5 (with 1 being the lowest and 5 being the highest) to assess students' knowledge of quantitative research techniques as demonstrated in the quantitative portion of their comprehensive exams. The rubric contains a 10-item learner objectives list. The faculty member(s) grading the quantitative portion of the exam completed the rubric, which was then collected by the graduate coordinator.

**Results:** 27 students took the comprehensive exams in the assessment reporting period. Complete evaluations were returned for 25 students for the methods exam. 60% of students received an overall "4" or higher.

# Improvements: College of Science *Political Science M.A. (continued)*

**Action taken:** The discussion of these results by the faculty and those faculty teaching the methods class was very useful in that they recognized the need for some changes in not only the structure of the methods exam, but to the methods class itself.

- The faculty recognized a dissonance between the outcomes they measured on the method comprehensive exam and what might be taught in a methods class.
- Learner objectives that form the rubric for the evaluation of the methods comprehensive exam should actually be incorporated into the methods classes.
- A working group of faculty who teach methods classes worked on establishing these learning outcomes within their syllabi. This initiative was also undertaken to obtain additional input from faculty members to lead to further refinements to the assessment criteria and to provide a consonance with the different approaches that instructors take to teaching the methods class. Also, the faculty recognized that a standard methods exam might be desirable, given that different faculty may emphasize different constructs.

# Improvements: College of Science

## *Political Science M.A. (continued)*

**Improvement:** In the reporting period seven students took the quantitative methods portion of the comprehensive exam, and evaluations were completed for all students. Only two students achieved a mean score of "4".

# Improvements: College of Science

## *Sociology Ph.D.*

**Assessment method:** At least 75% of the Sociology doctoral students will acquire an understanding of advanced sociological theory and methods/statistics. A written qualifying exam in sociological theory and in methods/statistics was used to assess competency in the success rate of students taking the written qualifying exam was compiled. Also, a theory examination and methods/statistics examination committees examined responses to identify student learning strengths and weakness.

**Results:** Eight of the nine students successfully passed the theory qualifying examination with a pass rate of 88%. Five of the 8 students successfully passed the qualifying examination in methods and statistics with a pass rate of 62.5%.

# Improvements: College of Science

## *Sociology Ph.D. (continued)*

**Action taken:** The faculty grading committees concluded:

- Students did well on questions that asked them to apply a theory to a topic. They also did well on questions that asked them to discuss a particular theorist's major contributions to sociology. Students did not perform as well on questions that asked them to compare two or more theorists on a major concept.
- There was improvement in students' interpretation of tables, but the committee still observed some weakness in that area. Other weak areas reported were in foundational aspects of statistics and methodology.

The committees decided to develop a rubric to more systematically examine the student responses on the exam for the future. A measure was added to collect additional information about students' strength and weakness in application of advanced sociological theory and methods/statistics. The faculty committees also decided to change curriculum in the first methodology/statistics course so that the students learn about data management and the foundations of data analysis prior to learning more advanced techniques in the second course.

# Improvements: College of Science

## *Sociology Ph.D. (continued)*

**Improvement:** Nine out of ten students successfully passed the theory qualifying examination with a pass rate of 90%. In methods and statistics, a total of 6 students took the exam. 100% of students successfully passed the exam. Analysis of rubric ratings suggested that students' greatest strengths displayed during the methods/statistics qualifying exam was developing an appropriate research design and their weakness was in interpreting tables. However, the average scores overall were consistently high: ranging from 3.0 (on a 0-4 scale) to 3.33. Ratings for students taking the theory qualifying exam showed that there were no obvious areas where students performed better than other areas but that overall, the average scores ranged from 2.3 to 2.5 on a 0-5 scale. These results were discussed with the faculty.

# Improvements: College of Health and Public Affairs

## *Criminal Justice B.S./B.A.*

**Assessment method:** Criminal Justice (CJ) students will demonstrate an ability to evaluate knowledge and information sources available to them on campus, via the mass media and online. Using a rubric with specified criteria, a panel of Criminal Justice faculty members reviewed papers and projects submitted by Criminal Justice major students in upper-division Criminal Justice courses, both online and in the classroom. Performance targets were: 100% of projects, papers and presentations evaluated will score 75% or higher. Additionally, 85% will score 85% or higher. Comparison of student learning in the face-to-face course and the web based course instruction mode was made.

# Improvements: College of Health and Public Affairs

## *Criminal Justice B.S./B.A. (continued)*

**Results:** A panel of faculty members evaluated projects from two upper-division CJ courses: 1. CCJ 3667, Victims and the CJ System (face to face); and 2. CJE 4654, Crime and Place (online). The panel considered the degree to which the students employed the following critical evaluation skills:

- Determines the nature and extent of the information needed.
- Retrieves information online or in person using a variety of methods.
- Extracts, records, and manages the information and its sources.
- Articulates and applies initial criteria for evaluating both the information and its sources.
- Synthesizes main ideas to construct new concepts.
- Uses information effectively to accomplish a specific purpose.
- 24 projects were evaluated. 100% scored 75% or higher. 87% (21 ) scored 85% or higher. The faculty panel did not observe any variation in student projects by instruction mode.

# Improvements: College of Health and Public Affairs

## *Criminal Justice B.S./B.A. (continued)*

**Action taken:** The faculty decided to use the same measure to determine whether the observed student learning performance holds for another cohort year.

**Improvement:** Using the same rubric, a panel of faculty members evaluated projects from two upper-division CJ courses: 1. CJT 3803, Security Management (face to face); and 2. CJE 4654, Crime and Place (online). 18 projects were evaluated. 100% scored 75% or higher. 88% (16) scored 85% or higher. The faculty panel did not observe any variation in student projects by instruction mode.

# Improvements: College of Health and Public Affairs

## *Criminal Justice B.S./B.A.*

**Assessment method:** A Survey was sent to community partners who employ criminal justice graduates - Asked to what degree do they agree with the statement, "UCF CJ graduates hired by you are able to employ ethical perspectives and judgments to problems and changing fact situations."

**Results:** 94.7% of respondents "agreed" or "strongly agreed" with the statement. However, focus groups with community partners provided feedback indicating stronger emphasis should be placed on ethics and ethical issues within program.

**Action taken:** Department developed additional measures to improve reporting of perceptions regarding graduates' ethical perspectives and judgments.

**Improvement:** Department increased number of sections of Criminal Justice Ethics (CCJ 4054) and added additional measures of this outcome to future plans.

# Improvements: College of Health and Public Affairs

## *Health Care Informatics, M.S.*

**Assessment method:** Three assessments were used to ascertain students' ability to think critically:

- 80% of students should score >80% on their SPSS assignments in *Biostatistics and Decision Analysis (HIM 6119)*.
- 80% of students should score >80% on their Capstone project in the Practicum.
- 80% of students should rate their ability to solve complex data-related issues as "very good" or "excellent."

**Results:** First measure was not met: 68% of students (28 out of 41) scored >80% on their SPSS assignments. Second two measures were met.

**Action taken:** Course sequencing was altered.

**Improvement:** Biostatistics and Decision Analysis course is now offered in the second semester. The Department developed a statistics refresher course for students who have concerns about their abilities in this area.

# Improvements: College of Health and Public Affairs

## *Public Administration, B.A./B.S.*

**Assessment method:** Survey was sent to graduating seniors

- Asked if they “are able to identify and discuss the major fiscal issues and the administration of revenue and expenditures.”
- 80% of students should indicate they “agree” or “strongly agree” with this statement.

**Results:** 77.2% (n=44) of respondents “agreed” or “strongly agreed” with this statement. Open-ended survey responses did not provide written explanations indicating why the goal was not met.

**Action taken:** A new tenure-earning faculty member was assigned to teach Fiscal Management course (PAD 4204).

**Improvement:** Student competency is judged now using a course project rather than a perception question on a survey.

# Improvements: College of Health and Public Affairs

## *Public Administration, M.P.A.*

**Assessment method:** Used a rubric to score a written assignment in *Human Resource Management Course (PAD 6417)*. 80% of students should meet the minimum expectations (to be able to identify and analyze human-resource problems and issues in a public organization).

**Results:** 72% met the minimum expectations.

**Action taken:** Students were advised to use additional resources such as the Student Academic Resource Center. Also, faculty members gave students additional materials to assist with writing skills.

**Improvement:** Guidelines for written assignments (papers) have been expanded and include more specific instructions. Improvements reflect the competencies outlined by the National Association of Schools of Public Administration.

# Improvements: College of Health and Public Affairs

## *Social Work, B.S.W.*

**Assessment method:** Students will identify, describe and analyze a practice problem and generate additional research in an assignment in Social Work Research (SOW 3401. 80% or above of students should earn 15 points or more out of 20 points (75%) on the assignment.

**Results:** 77% of students (109 out of 140) met the target.

**Action taken:** Expectations are more clearly stated to students. Instructors continued to explore additional means of helping students integrate theory with practice and research.

**Improvement:** The faculty members are exploring the option of a new social work elective and increasing the number of required electives to help students meet expectations.

# Improvements: College of Medicine

## *Medical Laboratory Sciences B.S.*

**Assessment method:** Medical Laboratory Sciences graduates will be able to demonstrate in-depth knowledge of analytical techniques and laboratory procedures correlating to disease states in the following sub-disciplines of laboratory science: Clinical chemistry; Hematology and Body Fluids; Immunohematology; Immunology; Clinical Microbiology; Molecular Diagnostics; Laboratory Management; and Education. All students will answer at least two out of three questions correctly on each of the subject areas on the final exam in the senior seminar course. This 239 question exam serves as a mock certification exam, and is used as an indicator of how prepared the student are for passing the ASCP national certification exam.

**Results:** 100% of the students in the senior seminar course met the 2 out of 3 question target for all subject areas (N = 20).

# Improvements: College of Medicine *Medical Laboratory Sciences B.S.*

*(continued)*

**Action taken:** Since the student performance improved on the mock certification exam, the measure was adjusted to focus on the actual ASCP national certification exam to yield national benchmark data to inform the program. The new measure stated that the Medical Laboratory Science program mean score in each of the sub-disciplines will meet or exceed the national mean for universities on the ASCP national certification exam.

**Improvement:** Of the sub-disciplines on the ASCP national certification exam: clinical chemistry sub discipline program score exceeded the national mean score by 24 points; immunohematology sub discipline program score was 9 points lower than the national mean score; hematology sub- discipline program score was 1 point lower than the national mean score; immunology sub-discipline program score was 35 points lower than the national mean score; laboratory management sub- discipline program score was 112 points lower than the national mean score; microbiology sub-discipline program score was 35 points lower than the national mean score; and urinalysis sub discipline program score was 77 points lower than the national mean score.

# Improvements: President's Division

## *Ombuds Office*

**Assessment method:** Revise and add new data collection processes based on Uniform Reporting Categories developed by the International Ombudsman Association (IOA). These categories include 9 broad categories and 85 sub-categories.

**Results:** New processes to the Ombuds data collection system were implemented by July 2011 and utilized to collect and report on statistical data to include 620 issues for the fiscal year.

**Action taken:** Collaborated with subject matter expert at IOA to review in detail the desired changes to existing system. The data collection process was revised and updated to incorporate Uniform Reporting Categories for quarterly and annual data collection.

# Improvements: President's Division

## *Ombuds Office (continued)*

**Improvement:** This quality improvement initiative will allow the Ombuds Office to be able to report on issues and trends across campus and provide systemic feedback to administration. These Uniform Reporting Categories will also enable the office to compare data with Ombuds Offices across the nation and amongst different sectors, hence contributing towards the Ombuds profession as a whole.

# Improvements: Administration and Finance

## *Landscape and Natural Resources*

**Assessment method:** Capture data from roof sensors on temperature and moisture content. Data collected did tie into sustainability strategies.

**Results:** Impactful student research in using native plants to decrease roof maintenance costs and heat transferred through the roof surface. Data was shared at state meetings, and serves as a model for others.

**Action taken:** Created a 2,700 sq. ft. green roof atop the Physical Sciences Building. Conducted research to quantify the differences between two native plant species (ties into department mission and goals).

**Improvement:** Reduced storm water runoff, sequestered carbon, created wildlife habitat, and reduced the urban heat island effect. Ability to use research to develop best management practices.

# Improvements: Administration and Finance

## *Purchasing Department*

**Assessment method:** Recorded and tracked cost effectiveness by comparing FY2010-2011 savings to FY2011-2012 savings.

**Results:** Achieved a cost savings increase from \$313,000 to an estimated \$1,760,000.

**Action taken:** Purchasing redirected and steered departments to the best procurement methods for all acquisitions and the use of pre-existing contracts.

**Improvement:** Refocused efforts to make competition and best value analysis an integral part of each purchase ensured the best pricing and greater opportunities for savings.

# 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. A Pre-Post Test was used to assess the gain in knowledge.

**Results:** 3,674 students voluntarily participated in the program with a 30% gain in knowledge for sexual violence prevention and bystander intervention (no minimum mandatory passing grade).

**Action taken:** Program will be mandatory for all incoming freshmen students in the 2011-2012 academic year.

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

# Improvements: Administration and Finance

## *Facilities Operations*

**Assessment method:** Tracking of all solid waste materials and recycling materials collected during the 2011 UCF football season. The target was to increase the Game Day recycling rate by 10%.

### **Results:**

- 2010 Game Day Recycling Rate - 23.10%
- 2011 Game Day Recycling Rate - 39.23%

Target Met, increased by 16.13%.

**Action taken:** Working with contractor efforts to recycle, using a single stream recycling event for the EPA Game Day Challenge for a recycling rate of 72% and the use of a blue recycling bag instead of a clear bag, all helped to increase the recycling rate.

**Improvement:** Less waste sent to the landfill, more materials recycled, better involvement by contractor, students and guests of the University.

# Improvements: Administration and Finance

## *Facilities Operations*

**Assessment method:** Tracking of Surplus Property, from original acquisition value of assets surplussed, and recovery sales through the Surplus Program.

**Results:** \$10,710,584.37 worth of assets was surplussed in FY2011-2012 based on original acquisition costs. During the same period measured (7/1/11 through 6/9/12) a total of \$218,301.05 has been recovered via the resale program. This is a 2.04% overall recovery rate and a 6.72% direct recovery rate on the items sold which had a total acquisition cost of \$3,250,489.51. The items that were not sold directly to the public were recycled through the program.

**Action taken:** The University Surplus Program became the vendor for surplus materials, a 10 fold increase over revenues realized over the use of a dedicated surplus vendor as in years past.

**Improvement:** Revenue for the University, efficient tracking of surplus property.

# Improvements: Administration and Finance

## *Human Resources*

**Assessment method:** Collected data on 516 medical and parental leave requests received in Human Resources.

**Results:** 7% increase in the number of Medical leaves processed within 15 calendar days; 30% in Parental leaves.

**Action taken:** Developed PeopleSoft query to identify employees; FMLA "Eligibility Notices" were sent to advise employees of rights and responsibilities under FMLA; Developed and held new workshops for medical and parental leave.

**Improvement:** FMLA is an on-going challenge for all but improved communication and education on the rights and responsibilities of employees and employer benefit everyone. HR accomplished the following:

- Improved training, communication, and customer service between HR and the UCF community.
- Developed and held a new Parental Leave Workshop.
- 100% compliance with the FMLA five day "Eligibility Notice."

# Improvements: Strategy, Marketing, Communication, and Admissions

## *Operational Excellence and Assessment Support*

**Assessment method:** Assist university stakeholders conducting assessment to bring about definable changes to programs, policies or procedures resulting in measurable improvement. The target was an increase by 5% annually the number of IE Plans and Results rated as exemplary or accomplished on the IE Assessment Plans and Results Rubrics.

**Results:** In 2009-10, 198 of 354 programs and units were rated 'Exemplary' and or 'Accomplished' on IE Assessment Results Rubric and 207 of 355 programs and units were rated 'Exemplary' and or 'Accomplished' on IE Assessment Plans Rubric.

# Improvements: Strategy, Marketing, Communication, and Admissions

## *Operational Excellence and Assessment Support (continued)*

**Action taken:** Several strategies were implemented to increase the quality of IE Assessment results and plans to include the following:

- Over 436 training sessions, customized consultations were conducted for the year 2010-2011 compared to the 200 sessions provided in 2009-2010, to promote the UCF assessment model and several best practices.
- When used by a trained DRC member, the IE Assessment rubrics have clearly been an effective tool to communicate expectations.
- Use of the collaborative peer mentoring model by DRC chairs and members.
- Several drafts of results and plans reports with feedback at each iteration from DRC members and chairs became more common.
- Presentations by assessment coordinators to their peers and DRC member committees was another best practice that has proliferated throughout the DRCs.

# Improvements: Strategy, Marketing, Communication, and Admissions

## *Operational Excellence and Assessment Support (continued)*

**Improvement:** The large increase in the percent of IE Assessment results and plans rated as accomplished or exemplary from the first rubric implementation year (2009-2010) to the second rubric implementation year (2010-2011) is a high level metric that resulted from definable changes in how IE Assessment is practiced at UCF.

### IE Assessment Results and Plans

Rubric Level		2009-10	2010-11	% increase
Exemplary + Accomplished	Results	198	233	17.7
	Plans	207	240	15.9