DISTINCTION / DISCOVERY
THROUGH
QUALITY ENHANCEMENT PLAN

Distinction Through Discovery:
**Expanding the Culture of
Undergraduate Research and Inquiry**

Florida Atlantic University

FAU

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Executive Summary

"Some universities measure greatness in decades and centuries. Florida Atlantic University measures it with every student who earns a degree, every researcher who makes a discovery and every community that is transformed."
President M.J. Saunders, 2011

The ***Distinction through Discovery*** QEP takes a multifaceted approach to improving student learning by expanding a culture of undergraduate research and inquiry at Florida Atlantic University (FAU). Our faculty and students recognize "inquiry" to be a process and/or a product which encompasses intellectual traits that transcend subject matter divisions. We aspire to create an intellectual community of scholars who are engaged in questioning, exploring, and pursuing research and inquiry in all their forms.

FAU is a comprehensive public university enrolling approximately 29,400 graduate and undergraduate students, with a student body that ranks as the most diverse in Florida's 12-institution State University System. FAU provides unequaled access to education as the only university with six campuses and sites located along more than 100 miles of Florida's southeast coastline. Built on a rich tradition as a teaching university with a respected faculty, FAU is earning a reputation as a top research institution. Within FAU's Strategic Plan, our University president has established an ambitious, renewed research agenda that builds upon FAU's growing strength in the Science Technology Engineering and Math (STEM), medical, marine, and business entrepreneurship fields. Engaged in key partnerships with internationally renowned private organizations FAU is poised to expand the culture of undergraduate research with the QEP *Distinction through Discovery.* This convergence of circumstance, including the choice of topic and plans associated with our QEP, provides FAU with the opportunity to maintain an identity of excellence in research, teaching and service.

The QEP Steering Committee solicited input from stakeholders representing university constituencies regarding current institutional programs and best practices. Their recommendations for expanding a culture of research and inquiry integrated with a review of the scholarly literature and other institutions' best practices framed our QEP plan. The Committee identified four separate themes under which the plan of action could be developed: curricular activities, co-curricular activities, honors programs and student-culture, and established six Student Learning Outcomes (SLO) to directly measure student performance. The efforts to improve the student learning outcomes and implement our plan of action can be divided into four main goals: 1. Establish an undergraduate curriculum which provides students the intellectual skills necessary to successfully engage in undergraduate research and inquiry, 2. Expand student co-curricular opportunities for undergraduate research and inquiry, 3. Increase support and recognition for faculty and students who engage in undergraduate research and inquiry, and 4. Enrich and strengthen an institutional climate that supports undergraduate research and inquiry. We present both current and future plans as a series of action items to establish an "intellectual ecosystem" here at FAU within the goals defined for our QEP.

The Assessment of Distinction through Discovery will focus on student learning, evaluating the expansion and enrichment of research opportunities and inquiry climate, and assessing the effectiveness of the initiative itself. The Committee will use the results of these assessments to continuously inform and improve the QEP initiatives. With the collaboration of FAU students, faculty and our community, these action items are unified with the overall goal of Distinguishing FAU students through the practice of Discovery.

Chapter 1: Process Used to Develop the Quality Enhancement Plan

A. Introduction to Florida Atlantic University

It is time now...for a new, adventurous, imaginative, courageous breakthrough for a new revolution in education in America." - Lyndon B. Johnson, 36th President of the United States at FAU's dedication ceremony in 1964.

Florida Atlantic University (FAU), the fifth public university in Florida and the first in southeast Florida, is a comprehensive public university enrolling approximately 29,400 graduate and undergraduate students. When it opened in 1964, FAU was the first university in the country to offer only upper-division and graduate-level work. In order to better serve the needs of its rapidly growing service region in southeast Florida, FAU opened its doors to freshmen in 1984, and now currently provides opportunity and choice for its undergraduate and graduate students through more than 170 bachelor's, master's, specialist's, and doctoral degree programs, including the doctor of medicine. FAU currently has nine academic colleges which include the Dorothy F. Schmidt College of Arts and Letters, the College of Business, the College for Design and Social Inquiry, the College of Education, the College of Engineering and Computer Science, the Harriet L. Wilkes Honors College, the Charles E. Schmidt College of Medicine, the Christine E. Lynn College of Nursing, and the Charles E. Schmidt College of Science.

FAU provides unequaled access to education as the only university with six campuses and sites located along Florida's southeast coastline. This structure has been developed in order to best meet the institutional mission, which is to provide public access to higher education, along with the necessary support services, to an unusually large service area comprising six counties spread along more than 100 miles of Florida's southeast coast.

Figure 1: Florida Atlantic University Campuses (graphic to be edited)

FAU BOCA RATON
777 Glades Road
Boca Raton, FL 33431
561.297.3000

FAU's first and largest campus occupies more than 850 acres just east of I-95. The campus has all the features of a modern university including state-of-the-art labs and classrooms, suite-style housing for students plus athletic and recreational facilities. It is also home to the A.D. Henderson University School, FAU High School, the Florida Atlantic Research and Development Park and the nation's largest Lifelong Learning Society.

FAU DAVIE
3200 College Avenue
Davie, FL 33314
954.236.1000

FAU's second largest campus, the Davie campus offers a wide variety of "2+2" programs in partnership with Broward College, which is literally just next door. The campus is also the base of operations for FAU's Everglades research and restoration efforts.

FAU FORT LAUDERDALE
111 East Las Olas Blvd.
Fort Lauderdale, FL 33301
954.236.1000

Located in downtown Fort Lauderdale, this campus is home to a mix of professional and design-oriented programs.

FAU HARBOR BRANCH
5600 US 1 North
Fort Pierce, FL 34946
772.465.2400

FAU's Harbor Branch Oceanographic Institute (HBOI) is dedicated to exploring the world's oceans — integrating the science and technology of the sea with the needs of humankind. HBOI is involved in research and education in the marine sciences; the biological, chemical and environmental sciences; the marine biomedical sciences; marine mammal conservation; aquaculture; and ocean engineering.

FAU JUPITER
5353 Parkside Drive
Jupiter, FL 33458
561.799.8500

Located in the Abacoa planned community, the rapidly growing John D. MacArthur Campus at Jupiter offers a variety of upper-division and graduate-level degree programs as well as the four-year liberal arts and sciences curriculum of the Harriet L. Wilkes Honors College. This campus has the distinction of hosting the South Florida headquarters of two international research giants, the Scripps Research Institute and the Max Planck Society.

5   6

Built on a rich tradition as a teaching university with a respected faculty, FAU is earning a reputation as a top research institution in areas ranging from biomedicine and biotechnology to ocean engineering and coastline security. FAU faculty researchers utilize more than 40 research centers which provide a foundation for discovery, and their efforts have earned the University "High Research Activity" status from the Carnegie Foundation for the Advancement of Teaching. The University is a charter member of the Life Tech Corridor, a regional consortium that is working to establish an industry cluster here in South Florida focused on biotechnology, pharmaceuticals, diagnostics, information technology, and medical imaging. In recent years, the State of Florida has invested more than a billion dollars in South Florida to encourage the growth of research and industry in this area. The Life Tech Corridor initiative will position FAU and other research centers in this area to take full advantage of that investment. Our institution has made key partnerships with private organizations such as the Scripps Research Institute, the Max Planck Society, the Torrey Pines Institute for Molecular Studies, the H. Lee Moffitt Cancer Research Institute, and the Smithsonian Marine Station, and we have begun expanding the Jupiter campus in graduate biotechnology research to facilitate this partnership.

FAU's Mission, Vision, and Strategic Plan (graphics to be edited)

"Some universities measure greatness in decades and centuries. Florida Atlantic University measures it with every student who earns a degree, every researcher who makes a discovery and every community that is transformed." President M.J. Saunders, 2011

FAU's Mission, Vision and 2012-17 Strategic Plan *"Making Waves: Celebrating and Cultivating Discovery, Diversity, and Distinction,"* emphasizes research as a key priority and our University's commitment to our Quality Enhancement Plan. The focus on research and inquiry fits well with the University's Mission to pursue excellence in research, scholarship and creative activity.

Figure 2: FAUs Mission and Vision Statement

Mission:
Florida Atlantic University is a multi-campus public research university that pursues excellence in its missions of research, scholarship, creative activity, teaching, and active engagement with its communities.

Vision:
Florida Atlantic University aspires to be recognized as a university known for excellent and accessible undergraduate and graduate education, distinguished for the quality of its programs across multiple campuses and classified as a very high research institution that is internationally acclaimed for its contributions to creativity and research as well as its collaborations with regional partners.

Our QEP initiatives are central to objectives in Goals I and II the University's Strategic Plan (refer to Figure 3).

Figure 3: Excerpts from FAUs 2012-2017 Strategic Plan

Excerpts from FAUs 2012-17 Strategic Plan
"Making Waves: Celebrating and Cultivating Discovery, Diversity, and Distinction,"

Goal I: Enrich the educational experience:

FAU aims to expand the breadth and scope of our honors program offerings and Science Technology Education and Math, STEM initiatives. FAU will increase the number of students, programs, scholarships and degree awards in both of these areas.

Objectives:

A. Enhance the quality of undergraduate academic programs
B. Strengthen and expand graduate programs
C. Invest in the faculty
D. Support an organizational culture in which all units are dedicated to student success
E. Create and maintain campus life programs and experiences that support student success

Goal II: Inspire research, scholarship and creative activity:

FAU plans to double the funded research in five years by hiring additional faculty and leading scholars and by facilitating current faculty interactions with relevant funding agencies. FAU's QEP focused on expanding a culture of research and inquiry throughout the undergraduate experience is emphasized under this goal.

Objectives:

A. Increase scholarship and creativity
B. Increase funded research
C. Enhance the regard and visibility of our research, scholarship and creativity
D. Strengthen and support interdisciplinary research and its visibility in the University
E. Involve students at all levels in research, scholarship and creative activity
F. Foster new types of research funding

Within the Strategic Plan, our University's President has established an ambitious objective to attain the highest designation, i.e., Very High Research Activity from the Carnegie Foundation for the Advancement of Teaching. The renewed research agenda builds upon FAU's growing strength in the STEM, medical, marine, business entrepreneurship, and other fields that fit into an interdisciplinary approach by addressing real-life and social problems of great significance. This convergence of circumstance, including the choice of topic and plans associated with our QEP, provides FAU with the opportunity to maintain an identity of excellence in research, teaching and service, and expand those efforts through curricular, co-curricular and honors initiatives. In addition to the Strategic Plan, our institution has continued to make research a priority with the development of three signature themes for the University: Marine and Environmental issues, Biotechnology and Neuroscience, and Contemporary Societal Issues. These themes capitalize on the University's existing strengths, foster interdisciplinary research,

and will help establish our institution as an engine that generates twenty-first century solutions to twenty-first century problems.

B. Our Faculty

FAU prides itself in its 1,077 outstanding faculty members who have dedicated themselves to excellence in teaching, research and service. FAU employs over 4,500 diverse faculty and staff, 55% of whom are female. Forty nine percent are tenured faculty, 15% are in tenure track positions, and 18% are term faculty (non-tenure, fixed appointments). Twenty seven percent of all FAU employees classify themselves as a member of an ethnic minority and 6% as international.

FAU faculty are renowned scholars including Fulbright awardees and winners of national and international awards in all disciplines. FAU has 17 Eminent Scholar Chairs in fields that encompass the arts and sciences, business, education, engineering, growth management, Judaic and Holocaust studies, nursing, philosophy, and social science. Per year, our faculty publish over 1,000 peer-reviewed articles, more than 100 books, gives presentations at over 1,300 professional meetings or conferences, and participates in more than 300 productions, performances and exhibitions - a true demonstration of our commitment to excellence in our disciplines. FAU faculty serve as exceptional teachers and research and inquiry mentors to our graduate and undergraduate student population, and are essential to expanding this culture through our Distinction through Discovery plan.

C. Our Students

As FAU develops as a leading institution in South Florida, our student numbers and diversity grows. The University's enrollment has grown steadily from 11,000 in 1984 to 30,542 in 2012, and the student body ranks as the most diverse in the 12-institutions within the Florida State University System. FAU is rapidly becoming a university of first-choice for students, as evidenced by the fact that the Admissions Office received more than 24,600 applications for the fall 2011 freshman class, almost double the previous year's number. Of the total student enrollment, undergraduate students comprise 80% (23,615). Students declared as Florida residents constitute 94% of our population, with the majority coming from Broward and Palm Beach Counties. Of the total population of students 43% are considered part-time.

FAU students come from all 50 states and more than 180 countries. With 47% of its student body classified as minority or international students, FAU ranks as the most racially, ethnically and culturally diverse institution in Florida's State University System. The percentage of minority students has steadily increased from 10% in the mid-1980s to 44% in 2011. Approximately 18% of students are African-American and 22% are Hispanic. Other minority populations included at FAU are Asian (4%), American Indian (0.2%), and Pacific Islander (0.1%). 2% of FAU's population identifies itself as multiracial. 2% of our students are also international.

Our degree-seeking undergraduates comprise 79% of the student population; 58% of students are female; 59% are full-time, 34% are first-time-in-college students and 53% of our enrolling undergraduate students are either community college or other undergraduate transfer students. FAU is unique from other schools because it is spread out amongst 7 different campuses. Most students attend class and reside on the Boca Raton campus; however, 15% of FAU's total student population attends class on the Davie campus. All of the different partner campuses allow for a strong commuter population (88%).

In fall 2011, FAU welcomed its largest-ever freshman class, 3,351 students including 110 exceptionally high-achieving high school graduates who entered the Harriet L. Wilkes Honors College. In fact, the average high school GPA of our incoming first-time-in-college students was 3.4 and the average ACT score was 23. The number of high achieving (high school GPA 3.5 and above) freshman who enrolled for the fall 2011 semester reached an all-time high of 39.2% (1,315), a 5% increase from the previous year. A strong sense of diversity is also displayed among the Honors College. Of all the students in the Honors College 16% identify themselves as Hispanic, 5% identify as Asian, and 4% identify as African American.

To date, the University has awarded more than 130,000 degrees. In recent years FAU has received national recognition for its outstanding record of conferring both undergraduate and graduate degrees upon minority students, including ranking twelfth in the nation for awarding bachelor's degrees to African American students. Some of the University's alumni have included U.S. and foreign dignitaries, Emmy Award and Pulitzer Prize winners, an astronaut, and executives who have served in organizations such as Boeing, eBay, Motorola and the White House. On the average, more than 70% of these FAU graduates remain in Florida to enter the workforce or to continue to graduate and professional schools. This distinguished student population is ideal for fostering excellence through undergraduate research and inquiry initiatives proposed through our Distinction through Discovery plan.

D. QEP Topic Selection and Planning Process

Our Distinction through Discovery QEP focuses on increasing the number and types of curricular and co-curricular opportunities for all motivated FAU students and faculty to engage in scholarly undergraduate research and inquiry. Our QEP institutional planning efforts from topic selection to implementation, has included broad based involvement of all institutional constituencies. Initial solicitation of pre-proposals included a process which generated ideas from a wide range of university constituents and eventual topic selection utilized SACS guidelines to ensure institutional needs and plan viability. The development of the plan focused on capability of our institution to develop, initiate, implement and complete the plan associated with enhancing student learning. The planning process was used to outline student learning outcomes, goals and action plan including an appropriate timeline, budget an assessment plan.

We present a chronology of the events and parallel activities that took place during the topic selection and planning process of the QEP (Table 1). Additional detail of the topic selection and planning process can be found in Appendix A. The efforts and feedback of our dedicated QEP Topic Selection, Steering and Executive Committee members, evaluators and consultants, and consistent feedback from the university faculty, staff and students across a two-year period, led to the development of the Distinction through Discovery and Executive Summary document for our Quality Enhancement Plan.

Table 1: QEP Topic Development and Planning Process Timeline

QEP Topic Selection		
Timeline	**Action Item**	**Milestone**
Fall 2010	QEP Co-Chairs selected	• Edward Pratt (Dean, Undergraduate Studies) and Jeffrey Buller (Dean, Wilkes Honors College) appointed • Engaged the university community on the QEP process through presentations and open forums and solicited pre-proposals
Fall 2010	QEP Website established	• Provided university assessment data to assist in identification of key issues emerging from institutional data through QEP website • Solicited Pre-Proposals and feedback on proposals
Fall 2010 – Spring 2011	QEP Topic Selection Committee	• **See Appendix C** • Solicited Pre-Proposals and feedback on proposals • Charged with selecting 3-4 topics from pre-proposals

Spring 2011	QEP Pre-proposals selected	• 15 pre-proposals were submitted -**See Appendix D**
		• Topic Selection Committee evaluated proposals, and 3 topics were chosen to move forward. The three topics included:
		    ○ Expanding Undergraduate Research and Honors
		    ○ Enhancing Students' Writing Abilities
		    ○ Experiential Learning

Spring 2011	QEP Topic selected	• Submitting teams wrote full proposals on topics chosen • Proposals were presented at open forums to university for evaluation – **See Appendix D** • Topic Selections committee summarized and provided university feedback to the SACS Leadership Team • SACS Leadership Team chose the topic of **Undergraduate Research and Honors** to be FAU's QEP -**See Appendix C**
June 2011	QEP Director chosen	• Dr. Donna Chamely-Wiik appointed QEP Director • Responsible for leading the initiative to develop, implement, and assess FAU's QEP, soliciting input from and participation by all institutional constituencies and ensuring the plan was integrated into ongoing institutional efforts.
QEP Planning Process		
Timeline	**Action Item**	**Milestone**
Summer 2011	Honors Education Task Force (HETF) established	• Parallel activity to the Quality Enhancement Plan • Charged with recommending a plan to expand honors education and high ability students at FAU- **See Appendix E** • QEP Director served on the HETF committee- **See Appendix E**
Fall 2011	QEP Steering Committee established	• **See Appendix F** • Charged with soliciting and evaluating university-wide information and data, reviewing the literature, identifying best practices and developing the QEP topic focused on student learning, and establishing a plan to improve student learning, including budget, timeline, organizational structure and measures of assessment. • Identified **four themes** under which the QEP could be developed: **Curricular, Honors, Co-curricular and Student Culture**
Fall 2011	Information gathering and outreach	• Information gathering and outreach continued – **See Appendix G** • QEP Director presents and meets with university-constituencies to discuss QEP plans in development and solicit feedback.
October 2011	QEP Student Council established	• Participated in a QEP student focus group- **See Appendix F** • Charged with identifying best practices and proposing needs related to the QEP topic • Key students participated in QEP Steering Committee

| Spring 2011	Council of Scholarship and Inquiry (CSI)	• QEP Student Council established CSI • Preliminary charged to establish the FAU Undergraduate Research Journal (URJ)
Fall 2011 – Spring 2012	Faculty Learning Communities implemented	• 2 QEP focused Faculty Learning Communities (FLCs) • Established a working definition of "research" and assisted with a comprehensive review of the literature • Provided additional venues for faculty feedback on QEP
January 2012	QEP Website updated	• New information provided on the QEP website
January – March 2012	QEP Subcommittees established	• Four Sub-committees established based on focused themes • Continued establishing best practices, reviewing appropriate literature and FAU data. **See Appendices H and I** • Established goals, objectives, action plan and timeline. • Submitted formal recommendations to the QEP Director
March – April 2012	Executive Committee established	• QEP Executive committee comprised of sub-committee chairs and co-chairs, QEP director, and QEP Co-administrative chairs • Merged recommendations and plans of action from four sub-committees into one executive working plan of action for the QEP • Established a proposed budget for QEP plan of action
April 2012	Plan of action and QEP budget revised and approved	• QEP Director presented executive working plan and budget to the FAU SACS leadership team • Feedback was provided, the plan was refined and • A 6-year budget was finalized
Spring 2012	Information gathering and outreach	• QEP director presents and meets with university-constituencies to discuss QEP plans in development and to solicit feedback. **See Appendix G**
April 2012	External consultant site-visit	• Site visit of Dr. Thomas Pusateri of Kennesaw State University. • Charged with evaluating the developing plan of action and assisting in developing a QEP assessment plan.
Summer 2012	QEP Website updated	• New information provided on the QEP website • New design of the website launched
Summer 2012	QEP plan refined	• QEP plan, budget, timeline, organizational structure, and in-kind collaborations were further refined based on feedback from executive committee, external consultant and university constituencies • QEP document writing process began
July 2012	Assessment Committee Established	• Comprised of members of the Steering committee- **See Appendix F** • Dr. Patricia Kirsch was appointed Assessment Coordinator and continues developing the assessment plan for QEP
July 2012	Marketing plan established and implemented	• QEP Director partnered with Marketing and Creative Services and the Office of Institutional Technology to create a plan and strategy to market the QEP. **See Appendix I**
August 2012	First draft of the QEP document completed	• QEP document edited • QEP Steering Committee reconvened to provide feedback on the first draft of the document.
Fall 2012	QEP Evaluator Recruited	• Dr. Mary Crowe was recruited as FAUs QEP Evaluator. • Dr. Crowe and Dr. Pusateri formally evaluated FAU's QEP document
Sept – November 2012	QEP document reviewed Marketing and Outreach continued	• QEP Document distributed to SACS Leadership team and made available on the website for feedback from the university community • QEP Faculty and student forums hosted, gave presentations re. QEP and solicited feedback from the FAU community - **See Appendix I**.
December 2012	QEP document completed	• Final revisions and modifications completed • Document finalized by Marketing and Creative Services • QEP final document distributed to the SACS Onsite team

Chapter 2: Institutional Assessment to Identify Key Issues

In February 2011, the QEP team began conducting a thorough evaluation of institutional data to identify both best practices and establish institutional needs from which we could build a plan of action through our QEP efforts. Once the Undergraduate Research and Inquiry QEP topic was selected, the QEP team continued data gathering and analysis to establish further best practices and a baseline of current activities on the chosen topic. The findings are presented below.

   **A. National Survey of Student Engagement, NSSE:**

The Steering Committee examined data from the NSSE (2009-2010) most relevant to students' undergraduate research experiences and compared our FAU student responses with two groups: 1. Student responses to NSSE from all institutions and 2. Student responses to NSSE from the Carnegie Class peer group with high research activity. The NSSE data related to student engagement in undergraduate research is summarized in the bar graph below.

Figure 4: Percent comparison of FAU senior responses with NSSE and Carnegie Class peer group senior responses for Student Engagement questions for 2010.
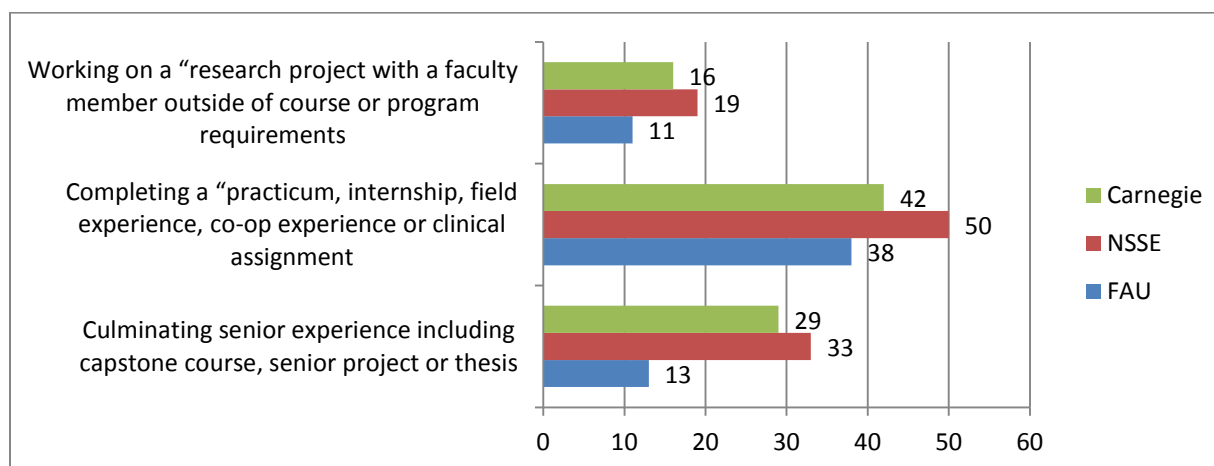
On average, FAU seniors reported a lower level of engagement in the activities presented as compared to institutions in its Carnegie classification, and well behind the NSSE average. We next evaluated FAU senior responses regarding interactions with faculty. As seen in Figure 2 below, again FAU seniors reported that they had fewer interactions with faculty outside of class when compared to our Carnegie peers and NSSE. Our evaluation of the NSSE data indicated a need to provide more opportunities for students to engage with faculty outside of the curriculum, through additional research and inquiry opportunities such as capstones, research projects and internships. We intend to use these data as benchmarks for assessing progress of our QEP efforts at FAU. We aspire to raise our profile in these areas and move closer to our Carnegie class peer institutions reported student engagement in the future.

Figure 5: Percent comparison of FAU senior responses with NSSE data and Carnegie Class peer group responses to Faculty engagement questions for 2010
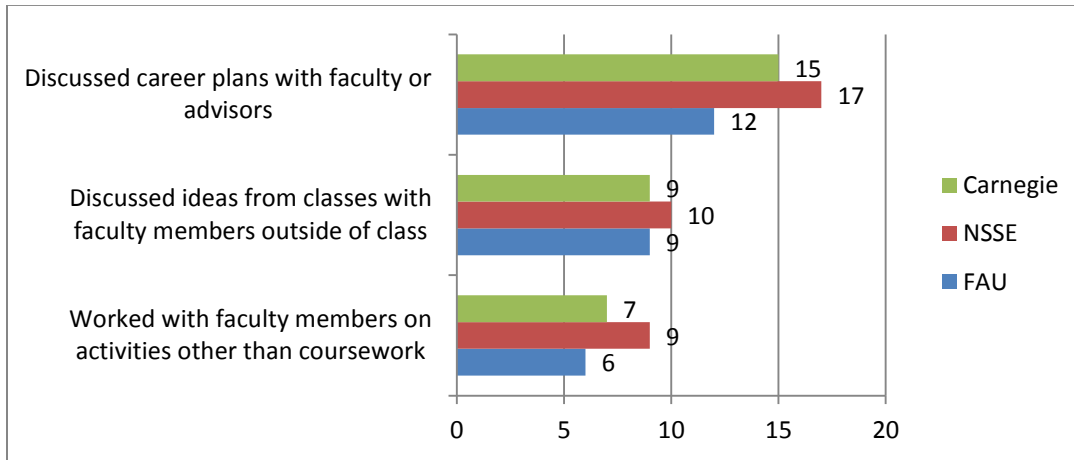
B. Employer, Faculty and Alumni Surveys

In addition to identifying needs related to specific student engagement activities, the Steering Committee was interested in identifying skills that faculty, alumni and employers valued as we prepared students for their future careers. QEP surveys were distributed in February 2011 to employers, faculty, and alumni asking each group to rank the importance of a series of attributes and abilities. All faculty were asked to rate the importance of these skills and their practice for undergraduate education, employers rated according to the hiring process and alumni rated according to FAU's educational contribution toward the development of these skills. All employers from the Career Development Center database were solicited to complete the survey. All recent alumni from the Alumni Center database were solicited to complete the survey, and the faculty survey was distributed to all current FAU faculty. A total of 484 faculty, 332 employers and 1339 alumni responded to the survey. Figures 3 and 4 provide a comparison of those responses for five top attributes identified by these audiences.

Figure 6: Comparison of Faculty and Employer expectations for student skills compared to FAU alumni perceptions of FAU's educational contribution to skill development. (3 highest – 1 lowest)
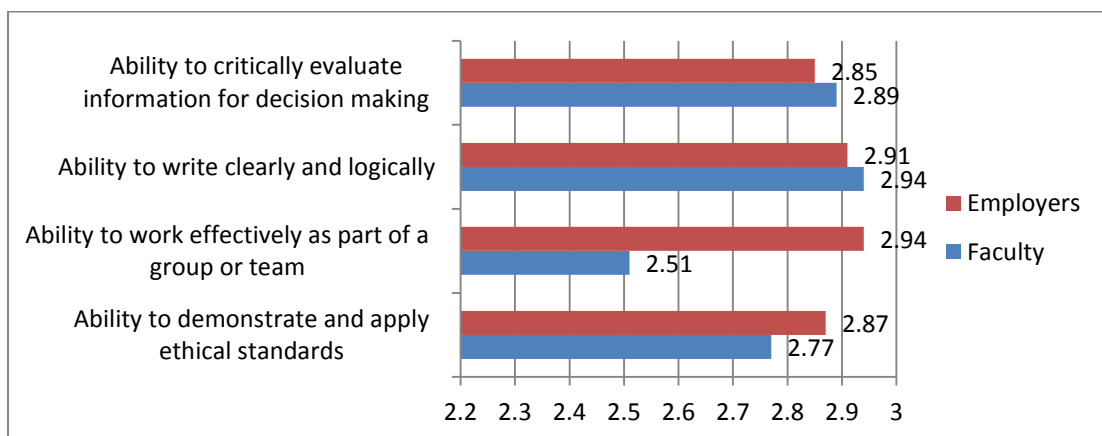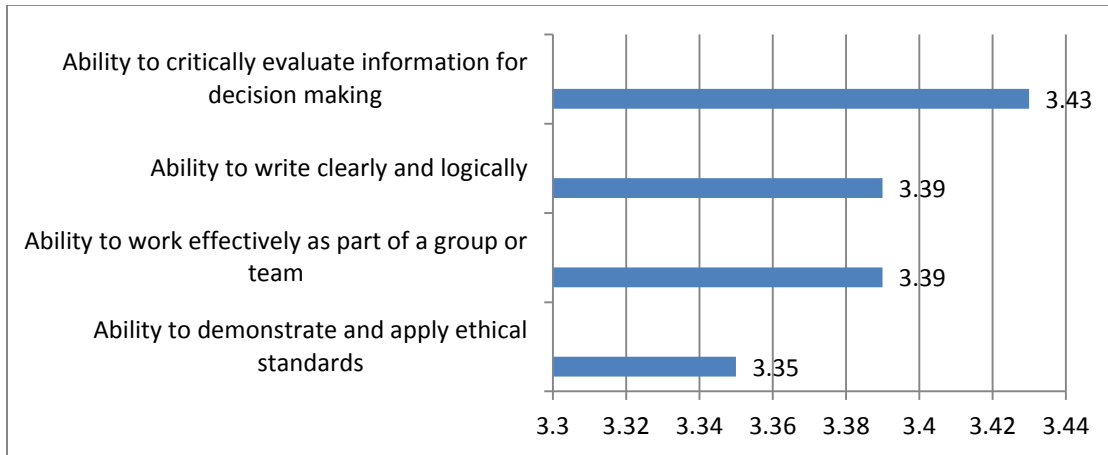
Figure 7: FAU alumni perceptions of FAU's educational contribution to skill development. (4 highest – 1 lowest)


When comparing faculty and employer expectations with alumni responses to how well an FAU education contributed toward the development of these skills, it is clear that there is a need for improving critical thinking, applications of ethics and communication skills to better prepare our students to meet their own and their future employer's needs.

C. Graduating Senior Survey:

Results for FAU's Graduating Senior Survey provided some additional information for identifying a need. For the academic year 2011-2012 a total of 1,771 students responded to this survey. When given a series of attributes and abilities, FAU graduating seniors were asked to identify the three most important to them. The following figure provides a summary of their responses.

Figure 8: Percent responses to specific skills and attributes deemed most important to students
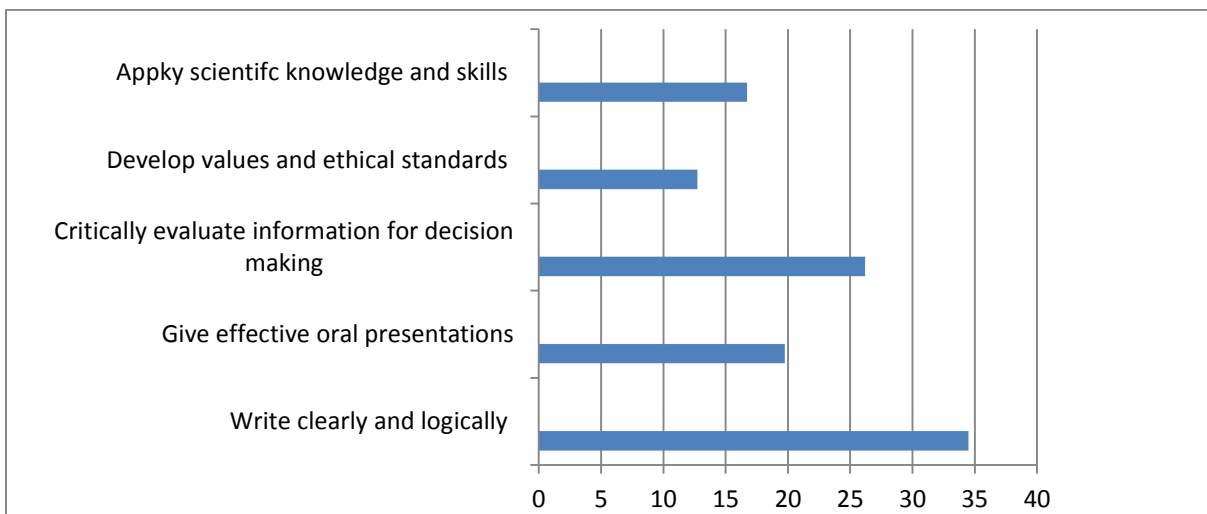
These necessary skills identified by our graduating seniors have been included in the student learning outcomes identified for our Quality Enhancement Plan.

Student panel discussion and focus group

At the 2011 Undergraduate Research Symposium held at FAU, a faculty and student panel discussion was held about undergraduate research at FAU. Through this panel discussion, students stated they had difficulty in navigating the path to become involved in research for a variety of reasons. A summary of student feedback from this panel discussion included:

- a lack of visibility, advising and availability of information on undergraduate research opportunities
- courses that fail to promote closer interactions between faculty and students
- curricula that gear students (particularly freshmen and sophomores) toward rote memorization rather than process and methodology involving problem solving and critical thinking
- a perception that the definition of research only applied to students conducting experiments in laboratories, rather than taking on many forms to include, for example, works of art requiring original thought.

Two final concerns students presented were that without making these opportunities more available and visible, they would be less likely to stay at FAU for their junior and senior years and that they felt under-prepared for entering the work-force. All of these concerns were reinforced through individual discussions with our Student Council to the QEP members. These data provided the basis for the choice of undergraduate research and inquiry as the topic of our QEP and the defined student learning outcomes of these efforts. Our department chairs, faculty and students provided insight into the importance of these activities, identified existing opportunities and highlighted additional needs for advertising current opportunities, establishing new ones both within and outside the curriculum and recognizing existing excellence in all students and faculty across the disciplines.

D. Baseline of Current Activities

"If the goal of the university is to teach students, then the best way to do it is through research." FAU Department Chair, 2012.

During Fall 2011 - Summer 2012, the QEP Steering committee conducted a university-wide self-evaluation in an effort to establish a baseline for the number and type of curricular and co-curricular opportunities for research, scholarship and creative activities conducted across the university. This effort began in December 2011, once the QEP topic of Undergraduate research and inquiry was finalized. All faculty were surveyed about current undergraduate research and inquiry practices within their departments, perceived institutional needs, and suggested future directions for the QEP Steering Committee. One hundred eighteen faculty (~11%) and 25 department chairs (54%) responded to this survey. The results from this survey are summarized below.

Figure 9: Faculty survey responses on the importance of undergraduate research and inquiry to various factors (percentage response presented of important or very important provided).
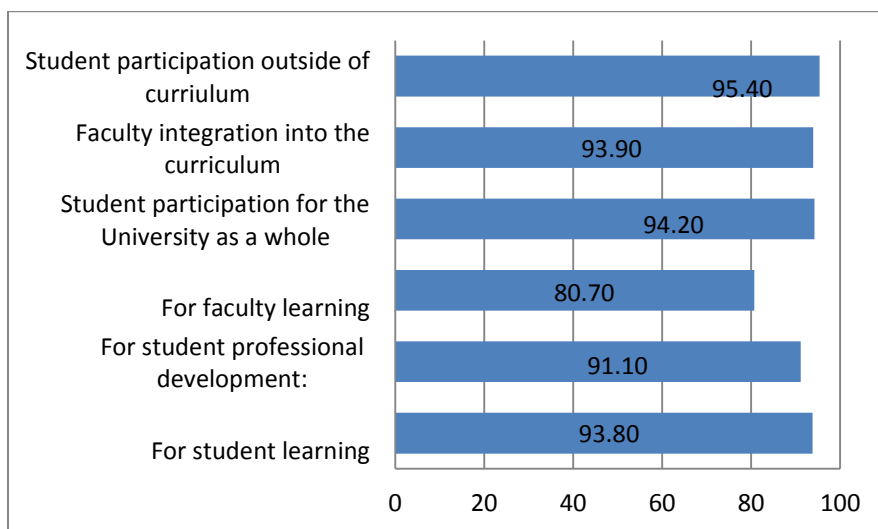
The responses indicate that faculty clearly value this high educational impact practice as an important activity for student learning and professional development. FAU faculty also highly regard integrating these practices into the curriculum and providing co-curricular opportunities for their students.

In summer 2012, a follow-up survey was distributed only to department chairs to clarify the types of research and inquiry opportunities that were currently available to students and to obtain quantitative data about the number of students currently participating in undergraduate research, scholarship and creative activities at FAU both within the curriculum and outside of the curriculum. There was a 100% response rate at some level to this survey from departments and colleges. At this same time, the QEP Director met with the directors of other university-wide support programs (e.g. Career Development Center, Weppner Center for Civic Engagement & Service) to catalogue existing undergraduate research and inquiry programs and to discuss opportunities to expand these offerings in the future.

Through this self-evaluation, we were able to identify a range of current opportunities for students to engage in research and inquiry, many of which comprise a set of institutional best-practices that form the basis for our Distinction through Discovery plan. These best-practices are presented below under Co-curricular opportunities and Curricular opportunities.

1. Existing University-wide Co-curricular Offerings:

    a. Undergraduate Research Grants:

For the past two years, the Undergraduate Studies Office has funded an Undergraduate Research Grants Program which provides financial support (up to $600) for individual students who participate in faculty-mentored research projects. For the 2011 academic year, 37 student awards were funded, and 59 were awarded for the 2012 academic year. Figure 10 represents the distribution of students awarded undergraduate research grants by college in 2011 and 2012.

Figure 10: Number of Undergraduate Research Grant Awardees Per College, 2011 and 2012
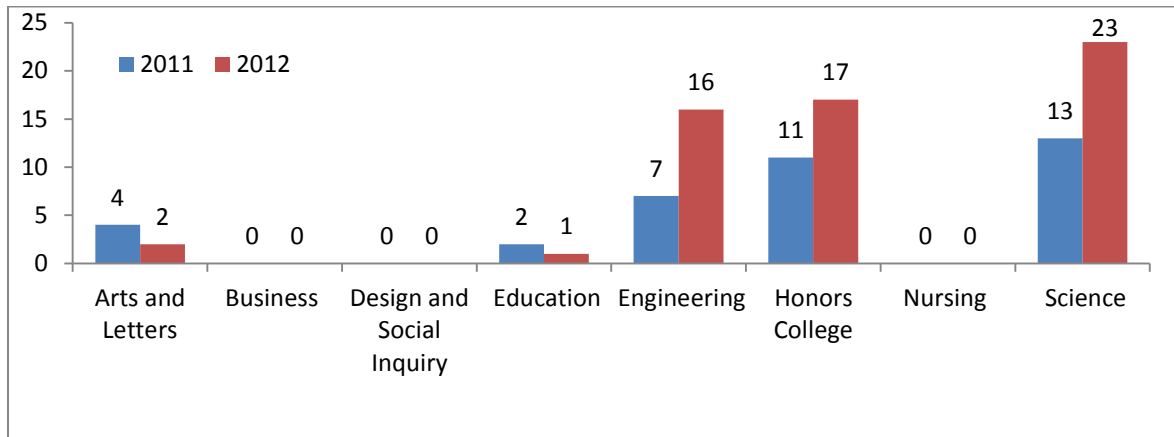

As Figure 10 demonstrates, the number of Undergraduate Research Grants awarded to students has significantly increased in the last year. However, the distribution of the awards across the colleges was uneven in both 2011 and 2012, with undergraduates in the Charles E. Schmidt College of Science, Harriet L. Wilkes Honors College, and the College of Engineering and Computer Science receiving the majority of grants.

   b.   University-wide Undergraduate Research Symposium

Since 2010, the Undergraduate Studies Office hosts an annual Spring Undergraduate Research Symposium, which provides students across all of FAU's colleges the opportunity to formally share the results of their research and inquiry projects with faculty, staff, and students. 49 students gave presentations in 2011. The number increased to 54 in 2012. Figure 11 provides the distribution of student presentations by college.

Figure 11: Distribution of the Undergraduate Research Symposium Presentations by College
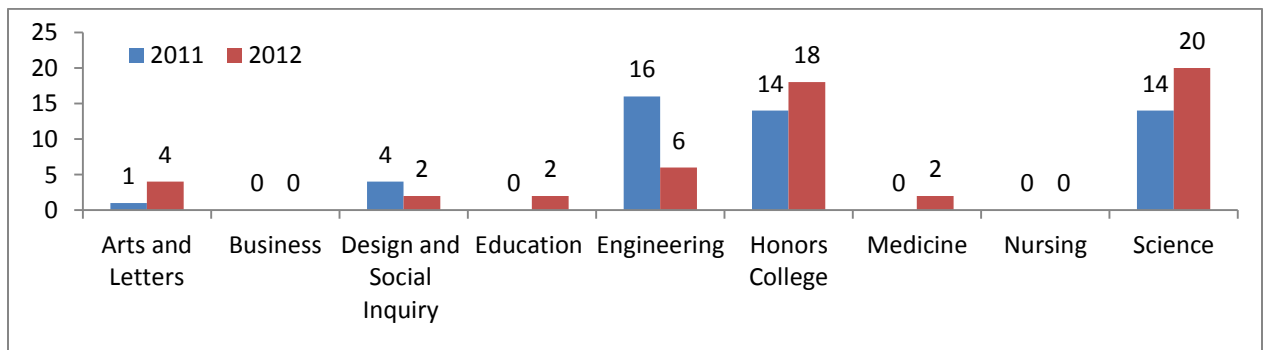
The data shows that the majority of participating students came from the Colleges of Engineering and Computer Science, Science and the Harriet L. Wilkes Honors College for the spring 2011 and 2012.

c. University-wide Undergraduate Research Journal.

FAU's inaugural undergraduate research journal received 24 submissions which are currently under review. The submission of student manuscripts by college is shown in Figure 12.

Figure 12: Number of Article Submissions to the Undergraduate Research Journal Per College
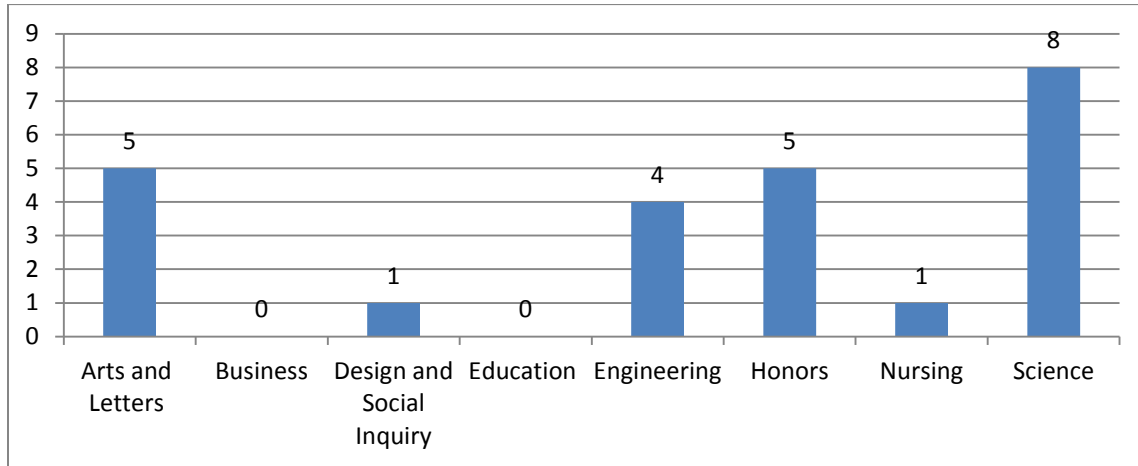
The figure reveals that the number of submissions to the journal varied widely by college. Students in the College of Science submitted 33% of the total submissions in 2012 and some colleges were not represented with any submissions at all. Data from all three University-wide research and inquiry offerings identify a need to broaden participation in under-represented colleges. Within our plan, we intend to increase participation in these colleges.

2. College and Program-Specific Opportunities.

In addition to the co-curricular opportunities for students to engage in research and inquiry university-wide, a number of departments and colleges across the university offer their own internal support for undergraduate research and inquiry activities. As Figure 13 demonstrates, only a small percentage of departments across the university provide internal funding for undergraduate research and inquiry projects or offer other forms of faculty support for it.

Figure 13: Percentage of departments that offer internal undergraduate research and inquiry support
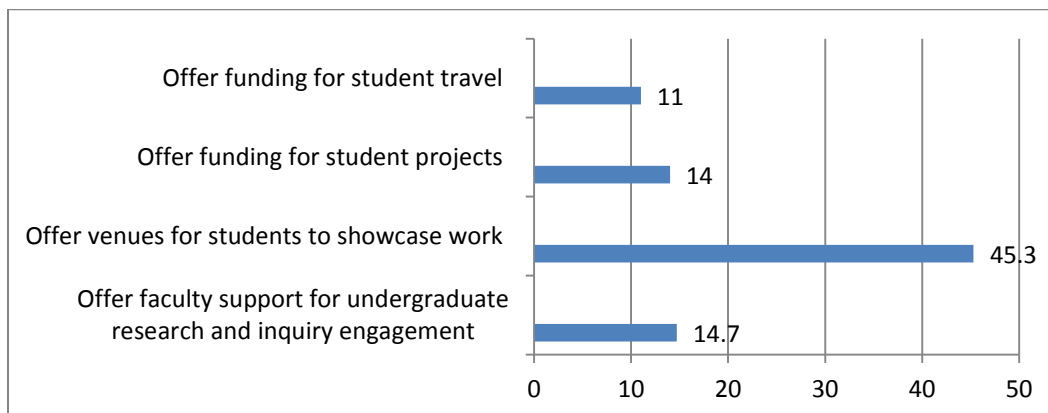
Table 2: Co-Curricular Opportunities for Undergraduate Research and Inquiry as a Function of College

| Activity	Arts and Letters	Business	Design and Social Inquiry	Education	Engineering and Computer Science	Honors College	Nursing	Science
Undergraduate Research Grants	✓		✓	✓	✓	✓		✓
Funded (federal or private grants)		✓	✓	✓	✓			✓
Local partnerships/ internships	✓	✓	✓	✓	✓	✓		
Volunteer Projects			✓		✓	✓		
Field Placement				✓			✓	
Student Showcase Opportunities	✓	✓	✓	✓	✓	✓		✓
Competitions	✓	✓						
Publishing in Journals	✓					✓		
Student Honor Societies	✓	✓	✓	✓	✓	✓	✓	✓

Qualitative and quantitative information reported by the faculty and department chairpersons reveals a great variety of co-curricular opportunities and best practices for supporting undergraduate research and inquiry as evidenced by Table 2. These include discipline-specific opportunities through federal or privately funded projects, existing local and community partnerships (e.g. research internships) and volunteer projects. A few key examples of such activities (and the number of students participating in them) are provided in Table 3.

Table 3: Examples of Undergraduate Research and Inquiry Co-curricular Opportunities.

Sponsor	Engagement Activity	Student #'s 2011- 2012
College of Science	National Science Foundation URM grant program	10
College of Business (not limited to FAU students)	Annual Business Plan competition	8
College of Arts and Letters	Bachelors of Fine Arts Senior Exhibition	57
College of Arts and Letters	Coastlines Literary Magazine	20
College of Engineering and Computer Science	Senior Design Presentation	54
FAU Davie Campus (not limited to Undergraduates)	Broward Undergraduate and Graduate Research Symposium	11
Wilkes Honors College – Jupiter	Symposium for Research and Creative Projects	66

Further analysis of the data provides some insight into the types of support offered directly by departments and programs for co-curricular activities associated with undergraduate research and inquiry. For example, although Table 2 shows that almost every college has "showcasing" opportunities for student work (see also Figure 13), only a handful of undergraduate students across the university have been involved in presenting research findings or in authoring/coauthoring an article or book (see Figure 14).

Figure 14: Number of students Who reportedly publish and present research findings
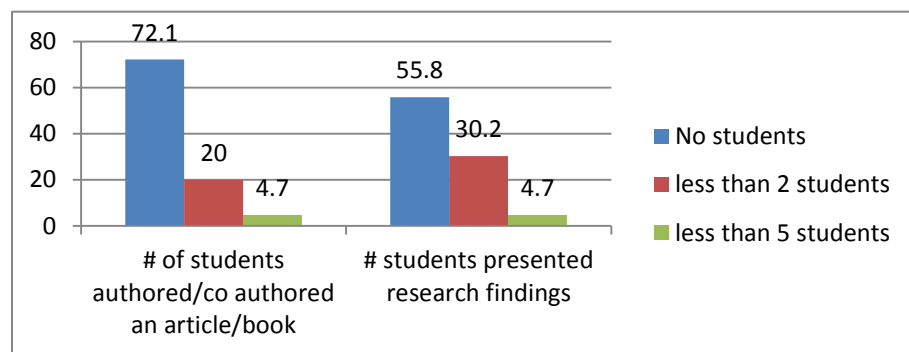
It is not clear, however, whether these low numbers reflect a relative emphasis on (only) internal showcasing opportunities for undergraduates, or whether undergraduate students are not

involved in these activities as a whole. One reason why only a few undergraduates have presented and published research and inquiry activities may be lack of internal funding.
Publicizing of FAU Co-curricular Opportunities

Currently, there is no one centralized location where students interested in participating in undergraduate research and inquiry can get information about opportunities and resources. Information is currently dispersed among several program websites including the Undergraduate Studies Office, Career Development Center, Financial Aid, and other departments and programs. The Undergraduate Studies office provides information about the Undergraduate Research Symposium and Grants program, and disseminates the information to the university through email blasts and announcements. The Career Development Center, CDC, manages a centralized job and internship online portal through a web-based link OWL Career Link. OWL Career Link allows students and registered alumni to upload resumes and apply to online job postings. In addition the job portal allows employers and community partners to upload job/internship opportunities and conduct resume searches. FAU's Financial Aid office hosts a general scholarship website that includes all academic, leadership, athletic and other scholarships. Departments such as Office of International Programs (OIP) and several colleges provide information about discipline-specific scholarships on their websites. FAU's Weppner Center for Civic Engagement & Service provides information for students and faculty to engage in community based projects through volunteer service or academic service learning opportunities on their website.

Through this self-evaluation, it was evident that there are core pockets of research and inquiry co-curricular activity involving small numbers of students unevenly distributed across departments and programs. What is needed is a coordinated approach to expand participation in all colleges, establish new opportunities, publicize existing opportunities to all students across departments and colleges, track student participation, measure the impact of their participation and communicate and recognize their successes.

3. Existing Curricular Opportunities:

There are a variety of curricular opportunities for students to be engaged in research and inquiry. The different types of opportunities identified by the programs include research and inquiry methods courses, advanced seminars or special topics with an applications emphasis, laboratory or design courses, field placement or practicum, directed independent study, honors thesis and capstone projects. Table 4 provides the course level assessment results.

Although students in some programs have access to many research and inquiry rich curricular experiences, students in other programs have little or no access. In most cases there is no clear path or coordinated approach within the curriculum to scaffold and incorporate these pedagogies to build student skills and better prepare them for more intensive research and inquiry experiences. Our Distinction through Discovery QEP aims at addressing these needs, to ensure that our students are better prepared to meet their professional goals. With a QEP focus on Undergraduate research and inquiry, we intend to use the evidence provided, as benchmarks for future assessment of achievement of our QEP goals. Enriching our student academic experiences and increasing the number and variety of students' opportunities to engage in undergraduate research and inquiry can generate solid foundations for higher order thinking and provide our students with opportunities for meaningful faculty interactions.

Table 4: Summary of current undergraduate research and inquiry curricular offerings by college.

Type of curricular assignment	Arts and Letters	Business	Design and Social Inquiry	Education	Engineering and Computer Science	Honors College	Nursing	Science
Research and Inquiry Methods Courses	✓	✓	✓	✓		✓		
Advanced Seminars or Special Topics	✓		✓	✓		✓		
Laboratory or Design courses				✓	✓	✓		✓
Field Placement or Practicum				✓			✓	
Directed Independent Study					✓	✓	✓	✓
Honors Thesis						✓		
Capstone projects	✓	✓	✓	✓	✓	✓		

Chapter 3: Review of Best Practices

"The mind is not a vessel to be filled, but a fire to be kindled" – Plutarch, 46-127 CE

A. Review of the Literature

The Need for Reform - Undergraduate Research and Inquiry as a Recommendation

The rationale behind choosing undergraduate research and inquiry to address the learning outcomes identified for our QEP was based on several reports, including the Carnegie Commission report which recommended reform in undergraduate education by making "research-based learning the standard" through the Boyer Report, and the Association of American Colleges and Universities' efforts through Liberal Education and America's Promise (LEAP), by establishing High Impact Educational Practices, which identify undergraduate research as a vital and valued practice for enhancing student success.

FAU has developed its goals and action plan to be consistent with the recommendations of the reports from the Boyer Commission. These reports emphasize the processes of inquiry, investigation, discovery, and communication as central to an institution's mission where "faculty and students are learners and researchers, whose interactions make for a healthy and flourishing intellectual atmosphere." The report provides a series of recommendations as a blueprint for institutions whose aim is to establish an "intellectual ecosystem" where "undergraduates benefit from the unique opportunity and resources available in research universities." These recommendations include a focus on promoting a discovery-based undergraduate curriculum; providing opportunities and promoting skill development throughout the entire academic experience beginning in the freshman year; facilitating mentorships through capstone experiences and other project-based activities; and establishing communities of learners (faculty and students) to cultivate a sense of belonging among groups with similar intellectual interests.

The recommendations from the Boyer Report were re-emphasized in Kuh's work, published through the Liberal Education and America's Promise (LEAP) initiative. LEAP's main goal is to align the goals for college education with the needs of the global workforce. Kuh's report challenges higher education to "make excellence inclusive." Kuh challenges educators to focus learning on "essential student learning outcomes" and the kinds of high impact educational activities that students participate in which may foster those learning outcomes. These high impact educational practices include undergraduate research, internships, capstone courses and projects, common intellectual experiences and learning communities. FAU's plan is to incorporate and increase these best practices

Outcomes Impact of Undergraduate Research

The benefits of participating in high impact educational practices have been shown in the literature for faculty, students, and the institution. The committee considered best practices from the literature that demonstrates high impact of URI for students, faculty and the institution.

Outcomes for Students

There is a growing body of literature supporting research-based approaches to learning, and undergraduate research and inquiry activities which provide student skills needed for their future

graduate or professional careers. We have summarized findings reported in the scholarly literature about student outcomes for this high-impact educational practice in the table below.

Table 5: Outcomes impact for undergraduate research and inquiry for students and the literature references

Executive summary of findings	Literature review
Students engaged in research activities are more likely to proceed to graduate from undergraduate programs; pursue additional research activity and utilize faculty for job recommendations when engaged in undergraduate research activities	Hathaway, Nagda, Gregerman (2002), Summers & Hrabowski (2006); Russell, Hancock & McCullough (2007); Bauer & Bennett (2003); Seymour, Hunter, Laursen, & DeAntoni (2004); Lopatto (2010, 2008, 2003); Ishiyama (2001);Laursen, Hunter, Seymour, Thiry, & Melton (2010)
Students who are involved in research early on demonstrate increased academic achievement and higher retention rates – strongest in African American students and sophomores	Nagda, Gregerman, Jonides, von Hippel & Lerner(1998), Bauer & Bennett (2003); Foertsch et al. (2000); Craney et al. (2011)
Participation in research produces increased curiosity, develops student research processes and skills including oral and written communication skills, analytical and critical thinking; technical skills; information literacy	Lopatto (2007); Kardash (2000); Bauer & Bennett (2003); Summers & Hrabowski (2006); Hunter, Laursen, & Seymour (2007); Seymour, Hunter, Laursen, & DeAntoni (2004); Bauer & Bennett (2008); Kuh, Chen, & Nelson Laird (2007); Lopatto (2006)
Participation in research provides opportunities for peer and faculty mentorship and the establishment of communities of learners	Alexander, Foertsh, Daffinrud & Tapia (2000); Nnadozie, Ishimaya, & Chon (2001); Bender, Blockus & Webster (2008)
Participation in research generates positive perceptions of their discipline and confidence in their abilities in that discipline	Jenkins and Healey (2009), Hunter, Laursen, & Seymour (2007); Kardash (2000); Russell, Hancock, & McCullough (2007); Seymour, Hunter, Laursen, & DeAntoni (2004); Russell et al. (2007)
Participation in research refines career goals and clarifies choice of academic degree	Hunter, Laursen, & Seymour (2007); Seymour, Hunter, Laursen, & DeAntoni, (2004); Russell, Hancock, & McCullough (2007)

Outcomes for Faculty

Students are not the only beneficiaries of involvement in undergraduate research and inquiry; benefits to faculty have also been observed. Jeffrey M. Osborn and Kerry K. Karukstis (2009) summarize these benefits which include enhanced mentoring and teaching, enhanced satisfaction with their career and personal development, achieved scholarly and research outcomes and integrated teaching and scholarship. More faculty are working with undergraduates since they themselves engaged in similar activities as undergraduates, and have identified the experience as being transformational for their careers (Russell, 2006).

Institutional Benefits

"Our university's reputation and success are dependent on each of us to create the knowledge environment that nourishes and develops all who come in contact with FAU. An institution of excellence creates an atmosphere of excitement that stimulates community involvement and support. Undergraduate research and scholarship guarantees that the university can expand its influence." FAU faculty member, January 2012.

Institutions embarking on making undergraduate research and inquiry an integral part of their mission will reap the benefits of this investment in their students. These practices establish a community of scholars which reflect a vibrant relationship between faculty and students, enrich the curriculum, and foster innovation both within the institution and through community partners. In addition, these students who become alumni will take these skills learned through the practice of undergraduate research with them. These are the same skills deemed invaluable for employers and graduate and professional programs. Our alumni will begin their professional career (graduate or otherwise) with a significant advantage for success. As the Boyer Report indicates "Ideally, those trained in an environment filled with inquiry and discovery will extend their experiences to classes they teach to include such pedagogies and practices."

Best Practices for establishing a culture of undergraduate research and inquiry

Many published reports have outlined best practices of undergraduate research and inquiry and have emphasized curricular and co-curricular initiatives. One recent publication, Rowlett et al (2012) entitled "Characteristics of Excellence in Undergraduate Research, COEUR," provides a comprehensive summary of best practices to support and sustain undergraduate research programs. Here we present those best practices and how we utilized them to establish a plan for our institution. We organize this into the four main goals of our QEP plan of action: 1) Curricular, 2) Co-curricular, 3) Community of Learners and Recognition and 4) Supporting Infrastructure

Table 6: COEUR Best Practices adapted for FAU's plan

	COEUR Best Practice	**Implemented in FAUs QEP**
All Goals	Institutional Commitment and Strategic Planning	• QEP goals and objectives align with FAU's mission, supported as a high priority, evidenced within the Strategic Plan
	Broad Disciplinary Participation	• Our research definition's emphasis on inquiry includes scholarship and creative activity • Opportunities encourage involvement in all disciplines by participants on all campuses
	Research Infrastructure:	• Office of Undergraduate Research and Inquiry, OURI will collaborate with other programs e.g. Division of Research
	Opportunities for Early and Sustained Involvement by Students	• Curricular, co-curricular and professional development opportunities are offered throughout the entire academic experience. • Multiple opportunities are encouraged
	Accessible Opportunities for Undergraduates	• Integrating research and inquiry into the curriculum provides opportunities to expose all students to these practices

		• Opportunities are available for all students in honors and conventional programs for both upper and lower divisions
	Establishing and Communicating Research Expectations	• Within each activity proposed by the QEP, student and faculty expectations are/will be explicitly stated
	Faculty Commitment and Scholarly Faculty Mentors	• FAU faculty have embraced this QEP and through their support and participation we will expand this culture of research and inquiry
	Faculty and Student Compensation	• Small stipends are offered for students and faculty through various QEP opportunities
Curricular	Establish a Research Supportive Curriculum	• Encourage faculty to integrate teaching and research through Curriculum Development Grants Program
	Developmentally Appropriate Expectations and Intellectual Ownership	• Curricular redesign will include scaffolded experiences for students based on their prior knowledge and expertise
	Student Course Credit for Research	• Establishment of a Research and Inquiry Certificate program;
Co-Curricular	Travel and other student funding provided by the institution	• Offer Undergraduate research grants program Student travel funding offered through Student Government
	External funding	• Current opportunities for students to participate in externally funded projects • Intention to increase these numbers and opportunities through our QEP efforts
	Dissemination including publications, presentations, conferences, on-campus symposia	• Offer annual university-wide symposium • Multiple college-based showcase opportunities • Established undergraduate research journal
	Expanding and integrating student research opportunities	• Established collaborations with other programs that offer high-impact experiences • Continued partnership with neighboring research based organizations
	Summer research program	• Establishment of a Summer Undergraduate Research Fellowship (SURF) • Additional marketing of existing summer offerings through OURI.
Faculty and Student Support and Recognition	Professional development opportunities- research and non-research related	• Faculty and student professional development opportunities established and expanded • Collaboration with Division of Research to offer opportunities undergraduate students
	Mentorship training for faculty and students;	• Mentorship training through faculty learning communities and a peer-mentor program
	Recognition	• Recognition through awards, showcasing

		excellence, and web-based venues
	Community of Student scholars	• Establishment of a student club, CSI • Peer Mentor program
Supporting Infrastructure	Administrative support	• Establish an Office of Undergraduate Research and Inquiry and website • Financial support and infrastructure provided by the university
	Integration with other engaging high-impact opportunities	• Collaborations with QEP partner programs and affiliated supporting programs with common goals
	Support from Research Grants Office	• Collaborations with QEP partner programs to utilize existing systems in place

Curriculum-based Best Practices

Because curricular initiatives are central to our efforts of expanding and sustaining a culture of undergraduate research and inquiry at FAU, the Steering Committee completed a more comprehensive review of best practices related to the curriculum. In addition to the recommendations from the Boyer Report, we reviewed the works of Jenkins and Healey (2005, 2009), and several Council of Undergraduate Research publications including Developing and Sustaining a Research-Supportive Curriculum: A compendium of Successful Practices (2007); Reading, Writing, Research: Undergraduate Students as Scholars in Literary Studies (2009); and specific chapters in Broadening Participation in Undergraduate Research: Fostering Excellence and Enhancing the Impact (2009). Two common tenets have emerged in the literature regarding these curricular and pedagogical reform discussions: 1. Students are at the center of the learning process and 2. A "learning through research and inquiry" approach is adopted. We provide a summary of exemplary practices in establishing a research-supportive curriculum.

Research and Inquiry Exposure Courses: Introductory courses which infuse the excitement of discovery and inquiry that expose students to what research is and is not, and how it is conducted. These courses generate an awareness of, and appreciation for research and inquiry as a practice.

Case Study and Problem-based Learning Pedagogies: An authentic problem or case study is used to initiate and develop student learning. Students actively participate in groups and mimic the research process to establish possible solutions.

Research-like Experiences: Courses and activities employ cooperative learning and project-oriented laboratories which simulate actual research processes and are based on concepts and principles already discovered.

Skill Building Courses: Courses such as "Research Methods" or writing intensive courses provide the skills and practices necessary and prepare students to participate in more intensive research and inquiry activities. Such skills and practices include research deconstruction, identification of the research question or problem, reading and communication skills, information literacy, introduction to research and ethics, problem solving & critical thinking, using technology to integrate research and inquiry into classrooms and knowledge specific to the discipline.

Culminating Experiences: Courses and programs are designed to include an honors thesis and other capstone or independent study projects. Students participate in a research intensive experience to develop and explore an original question.

B. Best Practices at Other Institutions

In our efforts to establish a comprehensive review of best practices for our plans, FAU SACS and QEP Steering Committee members participated in conference meetings; site visits, website reviews, phone conversations and list-serve emails to evaluate exemplar undergraduate research and inquiry programs from other institutions (See Appendix G). A variety of institutions were evaluated, many of them active in the Council of Undergraduate Research and other consortia, as well as those institutions whose QEP topic included undergraduate research and inquiry in previous years. Relevant and successful elements of the best practices from these institutions were noted, and we have modeled our own QEP plans after these as highlighted below.

Table 7: FAUs Goals and Plans modeled after other institutions best practices.

QEP Goal	Best Practice	Modeled After
Goal 1	Curriculum Grant Program and Curriculum Development	University of South Florida; University of Houston, University of North Carolina Chapel Hill
Goal 2	Summer Undergraduate Research Fellowship	University of North Carolina Chapel Hill , Harbor Branch Oceanographic Institute (FAU), California Institute of Technology
	External Funding Solicitation	University of Florida, University of Central Florida, Louisiana State University,
	Expanded Undergraduate Research Symposium	University of Central Florida, University of Michigan, University of Missouri, Columbia, University of North Carolina Chapel Hill, Lock Haven University
	Undergraduate Research Journal	Florida State University, University of Central Florida, University of Florida,
Goal 3	Faculty Professional Development	University of Miami; Stephen F. Austin State University; Tennessee State University
	Student Professional Development	University of Central Florida,
	Cultivate sense of community for students, peer-mentoring	Morehead State University, University of Central Florida,
Goal 4	Office of Undergraduate Research and Inquiry	University of Missouri, University of Central Florida, University of Michigan, University of Houston, University of North Carolina Chapel Hill
	Website	Florida State University, University of South Florida, University of Central Florida, University of North Carolina, Chapel Hill,
	Collaborations with University Partner Programs	University of Houston, University of Central Florida
	Undergraduate Research and Inquiry Steering Committee	University of Central Florida, George Mason University
	Assistance pairing students with faculty	University of Michigan, Austin Peay State University

Chapter 4: Desired Student Learning Outcomes

A. Definition of Research and Inquiry:

Analysis of data from our institutional self-evaluation and comparison of student responses with peer institutions presented in Chapter 2, provided evidence for an institutional need in student learning. The focus of our Distinction through Discovery plan is on addressing this need and accomplishing the mission of our institution by expanding a culture of undergraduate research and inquiry (URI) across departments and colleges within the university. To accomplish this, the QEP Steering Committee has articulated a working definition of research (adapted from the Council of Undergraduate Research, CUR) for the purposes of this QEP.

Figure 15: Definition of Research for FAU's QEP

> ***An inquiry or investigation conducted by an undergraduate student that makes an original intellectual or creative contribution to the discipline or practice.***

Our definition of research focuses on **inquiry.** FAU faculty and students recognize inquiry to be a process and/or a product which encompasses intellectual traits that transcend subject matter divisions. Examples of such processes common to the disciplines may include questioning existing ideas, problem solving, thinking creatively, and exploring new ideas and the processes by which knowledge is discovered. This "contribution to the discipline or practice" may result in deliverables such as exhibitions, performances, works of art, presentations, publications, and other forms recognized within each discipline.

B. Student Learning Outcomes:

Since the purpose of our QEP is to enhance student learning and "grow" capable students by engaging students in undergraduate scholarly research and inquiry, the QEP Steering committee developed the following student learning outcomes (SLOs) for our QEP. These learning outcomes were also compared to those identified by the American Association of Colleges and Universities VALUE rubrics as well as outcomes identified by other institutions whose QEP focused on Undergraduate Research such as University of Houston, University of North Carolina Chapel Hill, George Mason University and Embry Riddle Aeronautical Institute. The QEP Assessment Committee articulated potential Indicators for each learning outcome to guide the development of course-based measures (Appendix K).

FAU faculty recognize that there are many ways in which the processes of research and inquiry are conducted, and although these learning outcomes are presented in a numbered form above, the QEP Steering committee recognizes that **these learning outcomes do not represent a linear progression of the process.**

Figure 16: Distinction through Discovery Student Learning Outcomes

SLO 1: Knowledge. Students will demonstrate content knowledge, core principles, and skills.
SLO. 2: Formulate Questions. Students will formulate research questions, scholarly or creative problems with integration of fundamental principles and knowledge in a manner appropriate to their discipline.
SLO. 3: Plan of Action. Students will develop and implement a plan of inquiry to address research and inquiry questions or scholarly problems.
SLO. 4: Critical Thinking. Students will apply critical thinking skills to evaluate information, their own work, and the work of others.
SLO. 5: Ethical Conduct. Students will identify significant ethical issues in research and inquiry and/or address them in practice.
SLO. 6: Communication. Students will convey all aspects of their research and inquiry (processes and/or products) in appropriate formats, venues, and delivery modes based on the conventions of their disciplines.

We will address these student-learning outcomes and implement these goals throughout undergraduates' academic careers at FAU. In the lower division (LD), these skills will be introduced and developed by integrating a research and inquiry focus into the curriculum. In the upper division (UD), these skills will be extended, reinforced and applied by continuing the curricular research and inquiry focus in more advanced courses and by providing more students with opportunities to engage in faculty-mentored research and scholarly activity. Assessment of how well students achieve the QEP SLOs will center on direct course-based measures.

C. Program Goals

Our efforts to improve the student learning outcomes and implement our plan of action can be divided into four main goals:

1. Establish an undergraduate curriculum which provides students the intellectual skills necessary to successfully engage in undergraduate research and inquiry.
2. Expand student co-curricular opportunities for undergraduate research and inquiry.
3. Increase support and recognition for faculty and students who engage in undergraduate research and inquiry.
4. Enrich and strengthen an institutional climate that supports undergraduate research and inquiry.

D. Program Outcomes

We intend to evaluate the success of FAU's QEP in achieving our program goals by examining achievement of the following program outcomes for this initiative. The table below provides the Program Outcomes linked to the associated goals for our Distinction through Discovery plans

Figure 17: Distinction through Discovery Program Outcomes related to Goals

Program Outcomes	Goals
1. More students and faculty will be involved in undergraduate scholarly research and inquiry.	Goals 1, 2,3 and 4
2. Curricular changes will be implemented to integrate the teaching and research missions of our university.	Goal 1
3. Participating undergraduates will become independent, self-motivated critical thinkers who are prepared for their future goals.	Goals 1,2,3 and 4
4. Faculty and students will be recognized and rewarded for their participation in undergraduate research and inquiry.	Goal 3
5. An Office of Undergraduate Research and Inquiry and associated website will be established and sustained as a supporting structure for FAU's undergraduate research and inquiry efforts.	Goal 4
6. A method for assessing participation in undergraduate research and inquiry for both formative and summative purposes will be established and implemented.	Goal 4
7. FAU will be recognized for student and faculty undergraduate research and inquiry opportunities.	Goals 1,2,3 and 4

Chapter 5: Actions to be Implemented

"Undergraduate researchers learn tolerance for obstacles faced in the research process, how knowledge is constructed, independence, increased self-confidence, and a readiness for more demanding research. These benefits are an advantage in any career path." David Lopatto, 2006.

Our efforts with the QEP will increase the number of FAU faculty and institutional partners who provide curricular and co-curricular opportunities for students to engage in mentored, individual or group research and inquiry projects. To implement and expand a culture of undergraduate research and inquiry at FAU, and to improve these identified learning outcomes for our students, we will build and expand upon existing best practices within our institution and begin implementing new initiatives based on others' best practices; these encompass the core goals of our Distinction through Discovery plan. We have already impacted several programs on campus as a result of these efforts. With a renewed institutional emphasis to increase students' engagement in undergraduate research and inquiry, a number of programs have already begun collaborating with the QEP team to implement elements of the QEP plan of action (Pilot Programs). We have done this through curricular, co-curricular and community building initiatives for faculty and students. We present both current and future plans as a series of action items to establish an "intellectual ecosystem" here at FAU within the goals defined for our QEP. Opportunities will be made available to all of our students based on Kuh's recommendations of "making excellence inclusive," and "setting empowering educational goals for all students and not just for some of them."

FAU faculty value and recognize research and inquiry to be a process and/or product. That is, in addition to understanding the importance of providing students with opportunities to engage in research and inquiry projects, our faculty acknowledge that the methods of inquiry we expose students to, and the means by which we scaffold the development of these skills in our students, are crucial for undergraduates' critical thinking and problem solving. All of these action items are unified together with the overall goal of Distinguishing FAU students through the practice of Discovery.

Goal 1: Establish an undergraduate curriculum which provides students the intellectual skills necessary to successfully engage in undergraduate research and inquiry.

"We want all students to access the benefits exposure to teaching informed by research can bring. ... We believe an understanding of the research process – **asking the right questions in the right way;** conducting experiments; and collating and evaluating information – must be a key part of any undergraduate curriculum "- Bill Rammell MP, Minister of State for Lifelong Learning, Further and Higher Education (2006)

The importance of building undergraduate research and inquiry skills throughout students' academic experience has been recognized as a valuable and necessary part of their undergraduate education. The skills that students can acquire through exposure and engagement in research and inquiry as an exciting and creative process and its effects on society are exceptionally valuable.

Jenkins and Healy (2009) identified the importance of integrating the research and teaching missions of the university. They outlined four categories for integrating research into the curriculum which emphasize the processes, problems, and content involved. These categories include research led, research oriented, research based and research tutored curricular

components. In the first two categories, students serve as an "audience" for research and inquiry. In the last two, students are more likely to act as participants in the research and inquiry themselves. Drawing upon Jenkins and Healy's rationale, FAU's Distinction through Discovery QEP will encourage faculty to scaffold these kinds of effective experiences throughout the undergraduate curriculum by establishing developmentally appropriate student opportunities and experiences within programs across all four years. These pedagogical features will focus students upon identifying specific questions that guide scholarly activity as well as upon developing the prerequisite knowledge and skills needed to effectively answer those questions. The student learning outcomes incorporated into our QEP are aligned with these foci, and we seek to catalyze institutional change by establishing an Undergraduate Curriculum Grant Program. In this way, our Distinction Through Discovery Initiative will encourage and support faculty integration of research-focused pedagogical approaches into the undergraduate curriculum.

1. Establish a Distinction through Discovery Undergraduate Curriculum Grant Program.

The QEP Curriculum Committee will establish a Curriculum Grant Program to support the incorporation of research and inquiry into curricular elements that engage students. The Grant Program will begin by focusing on the upper division for the first two years, and then expand to the lower division programs and courses in Fall 2015. Proposals may focus on the revision of preexisting courses and curricular components or programs and/or the creation of new ones. The Curriculum Committee will encourage departments and programs to take a holistic, programmatic approach to implementing research and inquiry skills in their departments by identifying what specific research and inquiry skills are needed; evaluating their curriculum to identify when, where and how these skills are addressed; identifying what gaps and overlaps exist in developing these skills; evaluating whether current approaches have been effective at developing these skills and suggesting how skill development could be improved through proposed curricular initiatives.

In support of all curricular initiatives associated with Goal 1, the QEP budget includes over $500,000 in funds over the time frame of the Distinction through Discovery program. The budget for individual or department grants will be determined by the size and scope of each proposal. We have adopted the University of Houston's QEP model for funding these curriculum grants programs. Curriculum proposals that involve a single course or work limited to a single faculty or staff member will be awarded up to $5,000 in support; proposals that include two or more courses within a program will be awarded up to $10,000 in support, and proposals that include collaborations across departments, programs or colleges can be awarded up to $20,000 in support. The Curriculum Grants Program will be managed by the Office of Undergraduate Research and Inquiry and Curriculum Committee in collaboration with the college deans.

The Curriculum Grant Program provides support at all levels for faculty, departments, and colleges to adopt a research enriched approach to their undergraduate curricula. Based on feedback our QEP Steering Committee received from the university community through our surveys, focus groups, and individual consultations, we adapted Jenkins and Healy's (2009) taxonomy for research in the curriculum for our grant program. Thus, our program will support the redesign of curricular components, courses, and program elements—or the creation of new ones—in the following categories:

- **Research and Inquiry Exposure:** Students learn about current practices, literatures, and methodologies in the discipline. Learning is guided through discussion; colloquia;

assignments that introduce research and inquiry concepts, processes, and techniques; or other novice-level pedagogies and experiences.

- **Research and Inquiry Skill Building:** Students develop intermediate-level discipline-specific inquiry skills and more in-depth knowledge of methodologies. Learning is guided through instruction-supported advanced experiences such as research discussions and critiques; practice writing or producing specific components of scholarly work with some scaffolding, and developing project proposals.

- **Research and Inquiry Intensive:** Students learn to successfully and independently apply and implement discipline-appropriate research and inquiry knowledge and skills. Learning is guided through mentored independent study, conducting and reporting on a thesis project, assembly and presentation of portfolios, performances, and exhibitions; or the completion of other capstone or comprehensive experiential learning activity.

The following table provides more concrete examples of ways in which faculty can engage students in research and inquiry through these categories and at different student levels. These categories, and the types of activities within, mirror our goals for improving student learning.

Table 8: Examples of types of courses and specific activities within the three categories established for the curriculum.

Category	Examples of Research and Inquiry Activity and Courses
Research and Inquiry Exposure	- Understanding and appreciating research and inquiry and the methods used to generate knowledge - Activities that introduce and frame research and inquiry activities and the research question rather than only seeking answers - Exposure to new research projects in their discipline through interactive discussions by faculty and graduate students or on-site visits to locations where research and inquiry are conducted. - Utilize a case study approach - In-class discussion of a research ethics case study - Appreciation and practice of discipline-specific language - Introducing problem-based learning and other inquiry-based pedagogies through course exercises - Including a historical perspective of the discipline to model how research is developed in an ongoing changing process. - Engaging in research discussions or debates which review and critique hot research topics or policies
Research and Inquiry Skill Building	- A focus on the methodologies of research and inquiry and how such methods could be used to solve current problems or understand principles in the discipline - Incorporating research writing assignments or research-themed WAC courses - Mastering discipline-specific techniques for participating in research - Enhancements in specific skills such as information literacy and discipline-specific forms of communication such as written, oral, visual and technological - Restructuring a research methodology course to actively involve

	students in methods of inquiry
	• Adding a project to a course in which students will collect and analyze data
	• Adding a writing assignment to a course in which students will produce a research proposal
Research and Inquiry intensive	• Senior capstone courses or practicum (honors and conventional programs)
	• Group projects which require individual accountability through student dissemination
	• Community-based research projects
	• Project-based laboratories which engage students in the process of research
	• Special internship/co-operative educational experiences which involve community and industry partners
	• Creating special sections of Directed Independent Study that involve students as investigators
	• Producing new knowledge in the form of artwork, performance or creative work and reflecting on the process

Although curricular elements of research and inquiry may look quite different at the lower division compared to the upper division, and in different departments and programs, departmental curricula should address all three categories and their corresponding learning outcomes. Our aim is to expand existing efforts by establishing a curriculum development grant program as a catalyst for departments, programs and colleges to support the development of a culture of research and inquiry and adopt a research enriched approach to their curriculum beginning Fall 2013 (after the implementation of the Pilot Program as described below).

A key to the Distinction through Discovery Undergraduate Curriculum Grant Program is the alignment of the QEP student learning outcomes (SLOs) with the different categories of curricular integration of research and inquiry. Courses which receive the "research and inquiry exposure" and "research and inquiry skill building" designation are expected to address at least three of the six QEP SLOs, with SLO 2 being a requirement for the "research and inquiry skill building" designation. Courses which receive the "research intensive" designation must address all six QEP SLOs and engage students through all stages of an inquiry project. Proposals submitted to the Curriculum Grant Program will specify exactly how the SLOs are manifest in course activities; specific language explaining those activities and their associations with SLOs will be included in the syllabi for those courses.

a) Upper Division Initiatives (3000-4000 level courses) in the Distinction Through Discovery Undergraduate Curriculum Grant Program

Phase 1 (Fall 2012-Spring 2013): Pilot Honors in the Major Programs in three colleges

In Summer 2012, the QEP Steering Committee solicited faculty from three existing Honors in the major programs to serve as beta-testers for our QEP plans. The purpose of the pilot study was to create and evaluate a collaborative model between departments and the QEP for establishing, implementing, and assessing undergraduate research and inquiry curricular efforts through our curriculum grant program. Currently there is a 1.8% participation rate for undergraduate students in these programs. By Year 5, we expect to see a 3% participation rate. Of this 3% the three honors programs included Biology, Political Science, and Accounting; they

represented a diverse sample of programs and students offered at FAU. Two of the three honors programs (Accounting and Biology) were already in existence and currently serve the most undergraduate honors students. All three programs received the support of their deans, chairs, and departments for integrating undergraduate research and inquiry into their honors programs.

Each pilot program receiving funding through the Distinction through Discovery Undergraduate Curriculum Grant received significant support from the QEP leadership team (i.e., the Director, the Assessment Coordinator, and individual members of the QEP Executive Committee) to (re)design and implement curricular components of their honors programs. They were provided with the working materials created by the QEP Assessment Committee: the QEP student learning outcomes (SLOs) and program goals, and a generic rubric defining different levels of student achievement ("Developing," "Competent," and "Exemplary") for those SLOs. Ongoing consultation with several of our Undergraduate Research and Inquiry Partner Programs was provided on matters related to teaching and learning best practices, instructional design, and assessment. With this assistance, faculty in each pilot honors program identified student research and inquiry skills (student learning outcomes) targeted for development and improvement, or adopt those established for the QEP, identified or created specific course-based activities that are aligned with and can serve as program "indicators" (direct measures) of student learning outcomes, adapt a generic QEP evaluation rubric to the program's discipline and each of the identified indicators and establish benchmarks for "competence" in program indicators and measure how well students achieve SLOs. In Spring 2013, these pilot programs will be asked to report results, suggest improvements to program indicators and rubrics based on student and faculty feedback and establish potential indirect measures and benchmarks to evaluate methods for identifying, recruiting, and tracking honors students and recognizing the successes of students in the pilot programs.

The Pilot Program Group has been meeting routinely throughout the year with the QEP leadership team. For their participation, each department was provided with a $7,500 stipend in support of their involvement. The results obtained from the pilot honors programs and through consultation with our collaborating faculty will help us refine specific guidelines for honors programs and conventional research- intensive upper division programs that may participate in the Distinction through Discovery Undergraduate Curriculum Grant Program in the future. These refinements will include revisions to our assessment rubrics and operational systems to better meet the needs of our future participating programs.

Phase 2: (Fall 2013–2018): Future Plans for Upper Division Courses and Programs

Beginning fall 2013, the Distinction through Discovery Undergraduate Curriculum Grants Program will focus on the upper division curriculum supporting both conventional degree programs and honors in the major curricular initiatives. In the upper division (UD), all three categories of research and inquiry engagement will be supported (see Table 8), with an emphasis on providing more students with opportunities to engage in curricular pedagogies and projects involving research intensive involvement.

Our current guidelines for establishing honors in the major programs at FAU are consistent with recommendations made by the Council of Undergraduate Research (CUR) and National Collegiate Honors Council (NCHC) recommendations for research and inquiry, and will be used to establish such programs. Best practices established through honors courses will be applied to revise conventional courses and programs as applicable. Currently there are 14 honors in the major programs offered at FAU, however several of these programs are non-active. Our overall

goals for the upper division include establishing honors in the major programs in 50% of all departmental programs by 2018, totaling 23 active research and inquiry rich honors in the major offerings in the colleges. Twenty-three additional research and inquiry intensive upper division non-honors courses will be established by 2018. The University Honors Council (UHC), the governing body overseeing honors in the major programs at FAU, will continue to serve in this purpose. The QEP Director will serve as a non-voting member on this council. The University Undergraduate Programs Committee (UUPC), the governing body overseeing conventional curriculum, will continue to approve changes within the undergraduate curriculum. Our goal is a 10% increase in honors theses in Year 1 and a 50% increase in honors theses by Year 5.

   b) Lower Division Initiatives (1000-2000 level courses) in the Distinction Through Discovery Undergraduate Curriculum Grant Program

While development grants will focus on the upper division in the first two years, lower division curricular initiatives are important. They provide an opportunity to reach students in the early phases of their academic journeys. Freshman programs, especially, should both excite students about the possibilities of what lies ahead and establish a foundation to prepare students to embark on a lifelong learning adventure. The ideal curriculum will enrich learning experiences with all categories of research and inquiry pedagogies throughout students' academic careers and explicitly link their aggregated learning experiences in a coherent way. Our efforts at introducing students to the world of research and inquiry at a university builds on the foundations of a best practice we have already established through our learning communities.

Phase 1: (Fall 2012-Spring 2013): Pilot Integration of Research and Inquiry into the Freshman Learning Community Experience

As part of our QEP efforts, we have already begun integrating a "research exposure" component to select Living Learning Communities (LLC) and Freshmen Learning Communities (FrLC). Learning communities are cohorts of first-year students who are placed in different communities based on similar academic goals and interests. These learning communities are ideal for emphasizing discovery and inquiry in a small classroom environment. Students in learning communities take some of the same courses, which include the introductory 2 credit hour Strategies for Learning Success (SLS) course. The Center of Learning and Student Success (CLASS) staff, in partnership with the QEP director, during Summer 2012, included in their faculty development program fall 2012, a discussion with faculty teaching SLS courses the importance of and suggestions for integrating the excitement of discovery through research and inquiry into the curriculum of SLS courses. CLASS has set a priority to include either a research and inquiry or academic service learning component into 30% of all LLCs and FrLC by Fall 2012.

In fall 2012, eight Learning Community instructors committed to explicitly integrating research exposure components into their SLS courses. These sections include the Engineering (A) LLC, Engineering (B) LLC, Honors LLC, Women in STEM LLC, Pre Health Professions LLC, Visual Arts FLC, Psychology FLC, and Biology FLC. Language in the course syllabus explained that these are research exposure courses based on the level of the research and inquiry activity. We will continue to expand these initiatives throughout our efforts with the QEP. The assessment coordinator is working with the CLASS staff to engage in assessments of this initiative.

Phase 2: (Fall 2015- 2018): Future Plans for Lower Division Courses and Programs

In Year 3 (2015-2016), we will formally extend the Distinction through Discovery Undergraduate Curriculum Grants Program to include additional lower-division courses and programs. We will prioritize courses and programs which emphasize the re-design of courses in the Intellectual Foundations Program (IFP, FAU's general education curriculum). IFP courses impact all FAU students who enroll at FAU as First Time in College Freshmen. Thus, our emphasis on IFP courses affords us the unique opportunity to introduce students to learning experiences that expose them to the value and methods of scholarly inquiry, stimulate interest and excitement in possible fields of study, and give them first-hand experience with research and inquiry skills while providing the foundational knowledge necessary to progress into the upper division. Our goals for the lower division through the curriculum grants program include establishing an additional 40 courses emphasizing research and inquiry at the lower division. The University Undergraduate Programs Committee, the governing body overseeing conventional curriculum, will continue to approve changes within the undergraduate curriculum.

Goal 2: Expand student co-curricular opportunities for undergraduate research and inquiry

Scholarly experiences at FAU should promote undergraduate participation in mentored research and inquiry and support the active dissemination of student works. Independent study, internships, and other field-based experiences allow students to apply discovery and inquiry principles in a concrete context. Training and practice for undergraduates in how to effectively communicate their work though presentations, posters, exhibits, and professional portfolios builds student confidence and allows them to adapt to the career demands they will face in the future. These experiences can provide additional learning which complements the classroom.

The Distinction Through Discovery Initiative at FAU focuses university efforts on a series of specific opportunities for students to actively join a community of scholars both within our institution and within their chosen fields of study. The strategies for achieving this goal create clusters of student opportunities as categorized below.

1. Expand Opportunities for Students to Participate in Mentored Research and Inquiry

Mentorship is one of the most important elements of undergraduate research and inquiry. This QEP strategy focuses on providing additional opportunities for students to participate in and disseminate their work with mentored research and inquiry-based activities outside of the curriculum. We will do so by:
- Sustaining and expanding funding for scholarly undergraduate research and inquiry projects
- Coordinating and expanding opportunities for student participation in research and inquiry internships, fellowships, and community-based projects
- Expand efforts at communicating these opportunities to students.

With the implementation of Distinction through Discovery, we expect to increase the number of students receiving university-supported research and inquiry grants annually from 59 (currently funded) to 125 by 2018, increase the number of faculty who serve as mentors, disperse these grants throughout all colleges and initiate additional internships and community partnerships and projects.

a) Expand and Improve the Existing Undergraduate Research Grant Program

We begin by building on strengths within our existing faculty-mentored undergraduate research grant offerings. Currently, the Undergraduate Research Grants Program allows only materials and supplies to be offered to individual students engaged in research and inquiry mentored by a faculty advisor, to support their research and scholarship endeavors. In the past, more than 75% of these grants were distributed to students in the Colleges of Science, Engineering and Computer Science and the Harriet L. Wilkes Honors College, and the majority of the awardees were seniors. Through our QEP efforts, we have expanded the scope of the existing grant programs to encourage participation from all colleges and refined the application process for students, modeled after a federal grant proposal, which focuses students on the research and inquiry question to be addressed and method of approach.

Undergraduate students in all academic years will be eligible for these grants. We intend to maintain the $600 maximum amount for individual awards. In Fall 2013, the expansion will invite group projects, which may include collaboration with internal or external participants both nationally and internationally. Stipends for group projects will be allocated based on the number of participating students and the scope of the overall project (a maximum of $2,000 for up to five participating students and $3,000 for up to eight participating students). In 2011, 37 undergraduate research grants were awarded to students for their research and inquiry efforts. In Year 1, 70 undergraduate research grants will be awarded. By Year 5, 100 undergraduate research grants will be awarded. Faculty mentors will be provided with the Council of Undergraduate Research publication *How to Mentor Undergraduate Students* as a token of recognition. Moreover, we will expand the scope of funded activities to also cover travel and housing allowances for conducting research at national and international travel locations (including study abroad research opportunities). Student awardees will be expected to present their findings at the Spring Undergraduate Research Symposium and encouraged to publish their work through our Undergraduate Research Journal or other venues. They will be advised to apply for Student Travel funds through Student Government to present their findings at regional, national and international conferences. To broaden participation from under-represented colleges, the Marketing Committee will actively recruit submissions from those colleges, and in Year 1, the Steering Committee will earmark 15% of the grants to students from those under-represented colleges. Evaluation of future allocations will be made based on analysis of participation in future years. Management of the Undergraduate Research Grants Program will be coordinated between the Office of Undergraduate Research and Inquiry and the Dean of Undergraduate Studies in collaboration with the Steering Committee (See Chapter 7).

b) Establish a New Summer Undergraduate Research Fellowship (SURF).

Beginning Fall 2014, the Office of Undergraduate Research and Inquiry in collaboration with the Steering Committee will establish a new SURF fellowship at FAU. SURF is intended to be an intensive, ten- week summer immersion research opportunity for FAU students in their junior and senior years that had some prior research experience, i.e., those who have participated previously in smaller projects. Each SURF award will provide $3,000 in summer support to the student, based on the number of hours of student work, with an additional $300 for the lead faculty mentor in research support. Students will apply to participate in research projects under mentorship by a faculty member. A limited number of these will be made available beginning with six supported by the institution in 2014 and increasing to ten by 2018.

Each fall term, beginning in 2013, the Steering Committee will solicit faculty to submit potential SURF projects from all disciplines across all of FAU's campuses. A limited number of these

projects will be selected for funding. Students will be invited to apply for one of these projects during Spring, and the Steering Committee will select the awardees. SURF awardees will work up to 40 hours a week on the project under the guidance of their faculty mentor and will complete a written summary of the project, present their findings at the Spring Undergraduate Research Symposium, and submit a manuscript to our FAU *Undergraduate Research Journal* (described below) or other peer-reviewed venues. Moreover, participating students may be given the opportunity to sit on a panel at the Undergraduate Research Symposium. Students will be encouraged to present their findings at other venues, too, and apply for Student Travel funds through Student Government.

We anticipate that faculty mentors and departments will continue to provide students the skills and professional development opportunities to successfully engage in research and inquiry. As we establish and expand the summer fellowship, we will consult with participating faculty to assess whether additional support for these summer scholars is needed and establish structured workshops through the Office of Undergraduate Research and Inquiry, if necessary.

c. Solicit Support Through External Funding Sources

Our intention for the SURF and Undergraduate Research Grants program is to work toward pursuing additional student awards and other grants which expand this culture of research and inquiry through external funding sources. Such sources could include the Ronald E. McNair Scholars Program, National Science Foundation, National Institute of Health, National Endowment for Humanities and other sponsored projects through collaborations with community partners. Our Distinction through Discovery goals fit into the Division of Research and Graduate College's goal of doubling grant-funded research efforts at FAU within the next five years. Additional research and inquiry opportunities at the undergraduate level supported through a centralized office opens the door for more faculty research funding opportunities and other large, interdisciplinary or center grant applications. The Office of Undergraduate Research and Inquiry will collaborate with the Division of Research to provide information for faculty and students on available grant-proposal funding opportunities related to undergraduate research and inquiry through targeted emails utilizing the Division of Research's list-serve and by hosting roundtable discussions or other venues which bring faculty together to discuss submission of a specific proposal. Both programs will collaborate with faculty in departments and colleges to develop ideas and submit appropriate proposals with the intent of increased funding for related activities.

The Division of Research has already established a Faculty Research Seed Grant program which provides faculty stipends to foster increased extramural funding by facilitating the development of innovative research ideas and collaborations that will lead to successful grant applications. In 2011, 70 proposals were submitted by faculty, and the Division of Research funded 15 with a total sum of over $200,000. To support the efforts of our Distinction through Discovery Plan, the Division of Research has committed to allocating a portion of these funds to strongly encourage faculty to submit proposals which target undergraduate research and inquiry initiatives for both curricular and co-curricular purposes.

As part of Goal 2 of our University's Strategic Plan, strategy F commits to "Foster new types of research funding" by promoting funding from other sources such as philanthropic and private-sector partnerships. Within these fund-raising efforts, our institution will place a priority on support for Undergraduate research and inquiry opportunities for students including additional scholarships and fellowships.

2. Expand Opportunities for Students to Disseminate their Work

"Giving students an opportunity to become active members of their research community and giving them a voice to disseminate within that community seems crucial to their continued involvement in academic research." - Falkenburg, Gibson and Hanley (2012),

The Boyer Report emphasizes students conveying the results of their work effectively as part of the research and inquiry process. The idea that "no idea is fully formed until it can be communicated" establishes communication as a necessary life skill. The QEP Steering committee identified best practices of both undergraduate and graduate research symposia and journal offerings at FAU and other recognized institutional practices nationally, and established a goal to expand and improve FAU's offerings. All of these best practices mirror those recognized institutional practices that are currently implemented nationally. These inform a series of action items to FAU's culture and offerings toward undergraduate research and inquiry.

a) Expand and Improve the Spring Undergraduate Research Symposium

In spring 2012, we expanded the Symposium to include two concurrent oral sessions and began archiving the abstracts of the symposium through the University Libraries. Through our QEP efforts we will double the number of poster and oral presentations offered by 2018. Our goal is to have 60 oral and poster presentations by Year 1 and 96 oral and poster presentations by Year 5. Beginning Spring 2014, the Steering Committee will expand the scope to include submission of creative activities such as works of art and musical scores and compositions, increase marketing of this event, establish a peer-review process for evaluation of submissions, include professionals, alumni and researchers from within FAU and nearby institutions to serve as judges and/or keynote speakers and recognize outstanding student presenters and faculty mentors.

To assist with these goals, Student Government and the Graduate Student Association (GSA) will collaborate with our undergraduate student club Council of Scholarship and Inquiry (CSI) to formalize the student and faculty volunteers for this event to include judges and potential keynote speakers. Increased marketing for this event will be managed by the Marketing Committee and supported by the Undergraduate Research and Inquiry Partner Programs. Student Government has committed to purchasing 20 additional poster boards to support the expansion of all symposia offerings at FAU. They are negotiating to acquire a poster plotter for the FAU Boca Raton Campus. We have begun discussions with the Division of Research and Graduate College and Student Government to coordinate other showcase events at the undergraduate and graduate level into a "research week" at FAU.

b) *Establish and Sustain the FAU Undergraduate Research Journal (FAURJ)*

Students from FAU's Student Council to the QEP established a new student club in fall 2011, the Council for Scholarship and Inquiry (CSI). CSI's mission is to promote the existing culture of undergraduate research and inquiry at FAU across as many disciplines as possible, enhance scholarship, creativity, and academic excellence and encourage and foster school pride and unity at FAU. In spring 2012, CSI established the *FAU Undergraduate Research Journal*, FAURJ, to showcase high quality undergraduate research in all fields, supply younger students with information regarding the standard of research, and promote inquiry-based activities at FAU. Through their informational website, and with the assistance of the QEP Steering Committee, CSI advertised a call for papers and a call for faculty and student reviewers for the inaugural issue during spring 2012. Twenty-four papers were submitted and 30 faculty, 60

graduate and 80 undergraduate students volunteered to serve as peer reviewers. During summer 2012, CSI student leaders distributed the manuscripts for peer review. CSI established layout and editing during fall 2012 with the assistance of the University Libraries. FAUs inaugural issue was published fall 2012, using the Open Journal System, open source software, and hosted online at Florida Open Journals hosted by the University Digital Libraries Open Journal publishing system. FAURJ is financially supported by both Student Government (through CSI) and the Office of Undergraduate Research and Inquiry (OURI). Marketing for FAURJ will be supported by the Marketing Committee in collaboration with the Undergraduate Research and Inquiry Partner Programs (See Goal 4). In fall 2013, OURI will recruit and employ a faculty editor for the journal. By Year 5, the FAURJ hopes to see a 20% increase in submissions. FAURJ's efforts will be sustained through continued collaboration between OURI and Student Government and its supporting partner programs.

c. Facilitate Funding for Student Conference Travel

The QEP Steering Committee, endorsed by feedback from the university faculty and students as a whole, expressed a strong need to put systems in place that provide support for students to conduct undergraduate research and inquiry and disseminate their work nationally and internationally. Currently Student Government does provide support for student travel, with specific guidelines and procedures, overseen by a university-wide Student Travel Committee. From this, SG has an annual allocation of funds specific to dissemination of undergraduate research, including presentations, exhibitions and case competitions. SG is in the process of re-evaluating and revising their guidelines, and has agreed to additionally support our QEP efforts by including one undergraduate representative from CSI on the Student Travel Committee as a voting member. Undergraduate research and inquiry students will be encouraged to apply for SG funds. CSI students are also working on an easy to use "how to" instruction sheet for students to guide the applications process.

Goal 3: Increase support and recognition for faculty and students who engage in undergraduate research and inquiry.

"An institution that values undergraduate research as a high-priority activity that is integral to its educational mission will provide clear, tangible forms of recognition for faculty and students who engage in it." - CUR Quarterly; COEUR April 2012.

Our emphasis on a cultural change and synergistic approach to research and teaching involving both faculty and students requires additional support and recognition through professional development programs as well as a rewards system.

1. Provide Faculty Support and Recognition

"To remain effective scholars throughout their careers, faculty need the opportunity to learn new research methodologies, obtain recurrent research training, establish external research collaborations and scholarly networks, complete scholarly pursuits and freshen mentorship skills. Such professional development opportunities are critical to undergraduate research." CUR Quarterly; COEUR April 2012.

a) Offer Enhanced Institutional Membership to the Council of Undergraduate Research (CUR)

FAU has committed to offering enhanced institutional membership to the Council of Undergraduate Research. Membership at this level exemplifies our institutions commitment to transforming and supporting undergraduate research and inquiry. This membership option provides all faculty, staff and students access to the many benefits this signature organization for supporting undergraduate research offers. This will assist FAU with expanding the culture and implementing and sustaining our Distinction through Discovery initiatives.

b) Establish Faculty Learning Communities Dedicated to the Distinction Through Discovery Initiative

The Faculty Learning Communities (FLC) program is administered by the Scholarship of Teaching Office (SoTO) within FAU's Center for Teaching and Learning. FLCs provide a formal venue for exploration of topics and rich discussion by faculty from multiple disciplines who engage in active, collaborative year-long work on a specific topic of interest. Each FLC is led by one to two faculty members and includes up to ten additional faculty participants from the different colleges. Stipends are provided to the participating faculty at the end of the year when the objectives of the FLC are met. Each year, five to six FLCs are supported. In Fall 2011, SoTO sponsored two FLCs dedicated to the QEP. One focused on "Research, Creative and Scholarly Activities into the Undergraduate Curriculum" and the other was on "Teaching High Ability Students." These FLCs were successful in identifying appropriate literature, establishing discipline-specific case-study examples of research and inquiry rich pedagogies and practices and developing assessment strategies that follow best practices.

Phase 1 (Fall 2012-Spring 2013):Pilot QEP-Focused Faculty Learning Community

To support the development of courses discussed in Goal 1, in Summer 2012, the QEP Executive committee utilized the best-practices of the two previous FLCs, identified other literature associated with curriculum re-design and assessment, and established a series of professional development modules for future QEP-focused FLCs (See Appendix J). These Distinction through Discovery FLCs have two main goals:

- To enhance the role of scholarly inquiry and research throughout FAU's undergraduate programs and to achieve the student learning outcomes of the QEP. Starting with the upper division, we have established a series of modules on appropriate topics to assist faculty and departments in preparing for and submitting curriculum grant proposals.
- To equip participants to develop successful proposals for curricular redesign projects (QEP Curriculum Grant Program beginning fall 2013).

Seven modules were developed covering specific content-related topics associated with research and inquiry and guided proposal development and refinement (See Appendix J). FAU faculty and staff who have expertise in the content related to the specific modules have been identified and will lead these parts of the FLC, as part of a team-taught approach. We are currently piloting these upper division modules with faculty participating in two existing FLCs initiated in fall 2012, and based on faculty feedback, will modify the modules at the end of spring 2013. By spring 2013, departments participating in these FLCs will have developed new upper division programs (conventional or honors) or modified existing programs to include appropriate research and inquiry pedagogies, practices, assignments and assessments. They will be encouraged to apply for the Curriculum Grants Program for fall 2013 to implement these new or revised programs.

Phase 2: (Fall 2013 -2018): Future Plans with Faculty Learning Communities

We will continue to use the FLCs as vehicles for professional development associated with the Distinction through Discovery Undergraduate Curriculum Grants Program, and encourage participation from all colleges. Additional modules which include revised content about upper-division curricular features and new lower division redesign content will be developed for future offerings of these FLCs. As these QEP focused FLCs are implemented, bringing together teams of faculty distributed across the different colleges with similar interests, we anticipate that through these rich discussions throughout the year, interdisciplinary connections may be forged and collaborative projects established. Some of the FLC content will be adapted for dissemination through the Office of Undergraduate Research and Inquiry website and the Scholarship of Teaching Office website. This will allow open access to these professional development materials.

c) Provide Additional Opportunities and Support for Faculty Professional Development

      i.   Workshops and Programs

Through the Office of Undergraduate Research and Inquiry, and collaborations with our Undergraduate Research and Inquiry Partner Programs that offer faculty development, e.g. Writing Across the Curriculum (WAC) program, Scholarship of Teaching Office and Center for e-Learning, we have begun to offer other professional development opportunities to engage faculty in conversations about undergraduate research and inquiry. During Summer 2012, the WAC program partnered with the QEP Pilot Program, to provide specialized training for the Accounting Pilot Honors Program faculty on designing research-writing assignments. OURI and other programs will continue to offer those kinds of opportunities as well as informational brown bag lunches, workshops, seminars and showcases on integrating active pedagogies and best practices associated with research and inquiry in upper division, lower division and larger classroom environments, assessment of student learning outcomes, and guidance on mentoring undergraduate and graduate research students.

      ii.   Travel Funding

Beginning fall 2013, OURI has allocated a small travel fund ($10,000 annually) to support groups of 5-7 faculty to participate in conferences related to undergraduate research, honors and effective teaching pedagogies such as the Gordon Conferences and National Collegiate Honors Conference.

d) Establish Master Faculty Mentor Program in Each College.

FAU's existing Master Teacher program, administered by the Scholarship of Teaching Office (SoTO) provides support systems at the departmental and college level by identifying a small number of faculty in each college who, among other responsibilities, serve as a resource for other faculty interested in engaging in discussions about teaching, host college-specific faculty development workshops, and advise department and college leadership on policies related to teaching and learning. We will adapt this model by establishing a Master Faculty Mentor program in each college. In Fall 2014, Master Faculty Mentors will be appointed by the college deans for a two-year term. Six faculty will be appointed in 2014, and the number will increase to 12 by 2018. In addition to the prestige of this appointment, $5,000 will be provided to each faculty mentor to be used for course buy-out and travel for professional development related to undergraduate research and inquiry. Master Faculty Mentors will serve as a point of contact for

OURI endeavors in each college; faculty steering committee member to OURI; coordinators of the undergraduate research and inquiry mission of the college; facilitators of one/two major professional development (PD) opportunities within each college; guides for other interested faculty; student liaison for college-wide undergraduate research experiences and college assessment liaisons for the QEP. These mentors will also be responsible for providing an annual summary report to the OURI.

e) Establish a Distinguished Undergraduate Research and Inquiry Mentor of the Year Award

FAU's current faculty recognition awards and programs include the University Researcher and Scholar of the Year that rewards and recognizes excellence in sponsored and project-oriented research and scholarship, and the Research mentor/mentee program which supports senior faculty who engage in mentoring of junior faculty. In fall 2013, we will establish three additional Distinguished Undergraduate Research and Inquiry Mentor of the year awards (assistant, associate and full) to faculty who serve as model faculty mentors to their students. During spring- summer 2013, the Steering Committee will establish the criteria for these awards using the existing recognition award criteria as templates, and oversee the selections process. College deans will be asked for faculty nominations for these awards, and the awards ceremony will be included during our annual undergraduate research symposium. Beginning in Year 2 (Fall 2014), each year 3 awards will be given to faculty for their efforts in undergraduate research and inquiry. Awardees will be recognized with a $1,000 stipend to be used toward their ongoing research and inquiry projects.

2. Provide Student Support and Recognition

Student professional development is currently offered through several of our Undergraduate Research and Inquiry Partner Programs. Many of the offerings include some research and inquiry supported topics. The Career Development Center provides comprehensive services and programs for FAU students from first semester freshman to doctoral students, including professional development workshops such as Resume Writing, Mock Interviews, Job Search, Applying to Professional/Graduate School, Choosing a Major, Co-op Education/Internships, and Career Day 101. The Center hosts leadership forums, networking events and how to transition to the workforce student conferences throughout the year. The CLASS office offers several opportunities for student professional development, including training to present at workshops offered for incoming freshmen and transfer students, supplemental instruction and tutor training. Topics for the trainings include effective communication skills, working with diverse populations, ethics, critical thinking skills, group dynamics, and conflict resolution. Student learning community students have a variety of opportunities for student professional development. After the first year, learning community students are invited to apply to become Learning Community Liaisons (LCLs). These LCLs (typically ten per year) are provided ongoing training to serve as peer mentors for incoming students. Through our efforts with the QEP, we will expand the existing student development offerings and establish new professional development and recognition opportunities to support the expansion of this culture here at FAU.

a) Provide Specific Research Training Programs for Undergraduate Researchers

The Division of Research and Graduate College currently offers training for faculty and graduate students on responsible conduct of research (RCR), human subjects' research protection programs (IRB); animal care and use programs (IACUC); and good clinical practices and monitoring. The Division has committed to expanding these professional development programs beginning fall 2013 to include undergraduate researchers and will provide certificates and

maintain tracking of students completing such courses and programs. Students applying for and receiving university-wide undergraduate research grants are already required to indicate in the grant application if the intended research includes methodology involving an area of compliance that is regulated by federal, state, or university laws and policy. Those students will be required to attend such workshops and training programs during the time frame of the grant funding.

b) Provide Additional Professional Development Opportunities for Students

Beginning Fall 2013, the Office of Undergraduate Research and Inquiry and Peer Mentors will develop student workshops and online tutorials in collaboration with our Undergraduate Research and Inquiry Partner Programs, along with departments, programs and colleges. Such workshops will include getting started in research and inquiry, and information literacy or discipline-based writing sessions based on need as the program grows. OURI will offer at least one workshop per semester, and increase the number and variety based on need as the program grows. OURI will offer some online training programs with the assistance of the Center for e-Learning. As specific online modules are developed, they will be added to course Blackboard websites and the OURI website. As honors programs begin to be offered and more students begin writing theses and faculty begins to integrate research and inquiry in their courses, there will be additional need to support student writing. The QEP will support the University Center for Excellence in Writing by providing one additional graduate writing consultant in 2014 and 2015, and a total of 2 consultants in 2016 and 2017. These consultants will provide support to students completing capstone writing projects, and other research-writing assignments.

c) Cultivate A Sense Of Community for Students

In a large institution such as ours, where faculty and students are divided among several campuses, there is a need to establish a sense of belonging and community. Establishing FAU as an intellectual home was the main recommendation of our QEP Student Council members. Students in different departments have already made strides in this area through honors societies and discipline-specific clubs, but there has never been an opportunity for students with common intellectual interests to come together as a larger community.

Phase 1: Current Efforts with the Council of Scholarship and Inquiry (CSI)

In fall 2011, the Council for Scholarship and Inquiry (CSI) was established as a club affiliated with Student Government in collaboration with the QEP to become that larger community of learners. The purpose of the FAU CSI is to promote and foster a culture of research and creative activities at FAU and to provide students with opportunities to become immersed in this culture. CSI's first priority was the establishment of the FAURJ, our undergraduate research journal. CSI officers spent the year establishing the process to create this inaugural edition. The QEP has supported the FAURJ with a paid student editor position.

Phase 2: Future Efforts with the Council of Scholarship and Inquiry

Once the FAURJ process becomes streamlined, this student club intends to begin coordination among other existing clubs and discipline-specific societies. The goal will be to extend their community of learners by establishing connections with other clubs, assist in disseminating research and inquiry-focused campus-wide initiatives and gatherings, and initiate new opportunities for faculty and students across all disciplines to gather in an informal setting. Since this student club is integral to the mission of the Distinction through Discovery plan and its

sustainability, CSI officers will continue to serve as student council members to OURI. Additionally, an office with a computer in the space allocated for OURI has already been provided for CSI students. The Director of the QEP will serve as the faculty advisor for CSI. CSI is co-sponsored through Student Government and the QEP.

d) Establish and Sustain a Student Peer-Mentoring Program

OURI will recruit ten upper division undergraduate students and/or graduate students, representatives from all colleges and partner campuses during summer 2013 to serve as near-peer mentors beginning fall 2013. The Steering Committee will establish the criteria for these positions, and oversee the selections process. Mentors will provide advising to interested students by hosting open office hours. In addition, they will co-host workshops, deliver small presentations about existing research and inquiry opportunities to students in lower division classrooms, and collaborate with CSI to host annual social networking events for active undergraduate scholars. The student mentors will be awarded a $600 stipend to be used toward their ongoing research and inquiry projects. Faculty will be asked to recommend students for the peer-mentoring program during summer. The Steering Committee is in the process of developing a summer training program for these students by adapting the successful training models similar to the Howard Hughes "Entering Mentoring" Program and best practices from the Learning Community Liaisons peer mentor training program offered by CLASS. We are currently in discussions with the Division of Research to include this mentoring program in the two-day training workshop hosted by the Division of Research and Graduate College each semester. Peer-mentors will be required to attend this training session and other undergraduate students will be encouraged to attend.

e) Establish an Undergraduate Student Researcher of The Year Award

FAU's current university-wide student recognition awards include the Stan and Renee Wimberly Award; the Presidential Scholarships and the Phi Kappa Phi Scholarships. Students are nominated by college deans based on student scholarship and service. We will establish three additional annual undergraduate student awards. In fall 2013, the Steering Committee will establish the criteria for these positions by using the existing scholarship applications as templates, and oversee the selections process. Deans, in consultation with department chairs and program directors, will be asked to nominate students for these awards, and the awards ceremony will be included during our annual undergraduate research symposium. Beginning in Year 2 (Fall 2014), each year eight awards will be presented to students for their efforts in undergraduate research and inquiry. The student awardees will be awarded a $500 stipend to be used toward their ongoing research and inquiry projects.

f) Provide Formalized Recognition for Undergraduate Research and Inquiry Activities

Through the establishment of more honors in the major programs that are research and inquiry focused, students will be formally recognized for their accomplishments through notations on their transcripts. This is a current practice for students completing the lower-division University Honors Program. Both the Wilkes Honors College and the Department of Accounting have established a medallion ceremony that celebrates and recognizes honor students' accomplishments, and the medallion is worn at commencement. The University Honors program hosts a ceremony where students are awarded their certificates of completion and a UHP cord. Such practices will be encouraged for other research and inquiry enhanced programs supported by the QEP.

As part of our future efforts with the QEP, we intend to establish a new university-wide Research Certificate Program for honors and non-honors students. We intend to establish this in Year 4 of our Distinction through Discovery plan, once upper and lower division courses begin to be established, assessed and revised. Criteria for this certificate will need to be established at that time. We envision that such a certificate program will include student completion of a research and inquiry intensive course as part of the requirements. We are in the process of evaluating whether our existing Directed Independent study (DIS) credit program could be used for this purpose. The QEP Steering Committee has discussed establishing a new zero-credit research option (RIS) as a possible choice in the future. We will continue discussions with faculty and students to identify the best approach for providing credit on student transcripts.

Goal 4: Enrich and strengthen an institutional climate that supports undergraduate research and inquiry.

"Creating a campus culture that values and rewards undergraduate research is essential for sustaining a robust undergraduate research program.- *CUR Quarterly*; COEUR April 2012.

Although FAU students and faculty have been involved in undergraduate research and inquiry, one of the most common recommendations we have received for expanding existing efforts is to systematically market and disseminate information about existing opportunities for undergraduates to participate in research and inquiry. . As Kuh states, "a much greater level of coordination and intentionality" is needed. We intend to address this need in the following ways.

1. Establish and Sustain an Office of Undergraduate Research and Inquiry (OURI)

FAU has established a small administrative support office for the QEP housed under the Dean of Undergraduate Studies as part of the Center for Teaching and Learning, the central hub of all student and faculty support programs at FAU. In Fall 2013, this office will become the Office of Undergraduate Research and Inquiry; OURI which will oversee the establishment and sustainability of the culture of undergraduate research and inquiry here at FAU, and serve as a clearinghouse of information for faculty and students.

OURI will manage and support the following programs: the existing annual undergraduate research symposium, our recently established FAURJ (co-supported by the CSI student club); the existing undergraduate research grants program; the new summer undergraduate research fellowship (SURF); the curriculum grants programs associated with our QEP efforts and professional development opportunities for faculty and students and the peer-mentoring program. In addition, OURI will serve as the central office associated with implementation, management and assessment of QEP efforts including: updating the university community of all ongoing QEP initiatives available for student and faculty participation, data collection and analysis for program assessment of QEP learning outcomes and program objectives and writing appropriate reports required for SACS.

The office will be staffed with a faculty director, graduate student assistant and budget manager who will be responsible for the administrative and managerial responsibilities associated with OURI. In addition, we have employed a part-time assessment coordinator to oversee the assessment and achievement of outcomes for our ongoing QEP and SACS reporting requirements, and will be recruiting an external evaluator in Years 2, 4 and 5 to ensure the goals of the QEP are being met. The assessment coordinator with the Director of the QEP, the Assessment and Instruction Office and the Office of Institutional Effectiveness and Analysis, will

be responsible for assessing the effectiveness of our existing plan and recommending and implementing modifications, based on results and feedback in the future.

   a. Establish a Centralized Website for Undergraduate Research and Inquiry

To further enhance the research and inquiry culture of FAU, increase communication of opportunities for faculty and students on QEP and undergraduate research and inquiry, and foster support for all participants on all our partner campuses, we will establish and maintain an OURI informational website (fall 2013) associated with the office. We are currently examining websites at other institutions to serve as models for FAU's site. In Fall 2013, the existing QEP website will be merged into the new OURI website. Initially, this website will provide an up-to-date list of available opportunities including research and inquiry designated course offerings, fellowships, workshops, grant deadlines, and direct links to existing honors programs, university wide research and inquiry initiatives and college specific events being offered. We will have web-based resources for students, staff, faculty and external community on research and inquiry. The OURI website will be used to showcase students and faculty actively engaged in student scholarship and creative research through faculty and student spotlights and newsletters. The existing undergraduate research resources currently hosted by the Dean of Undergraduate Studies website will migrate to the new OURI website to centralize all information related to undergraduate research and inquiry. We are currently in discussion with the Career Development Center regarding the feasibility to invite faculty to refer their industry contacts to post their internship opportunities in OWL Career Link to serve as a centralized database for other undergraduate student research and inquiry opportunities including faculty credit-bearing and stipend-supported projects.

This website will serve a dual purpose of updating the community on FAU's QEP initiatives including the QEP final report, follow up reports required by SACS and annual update reports to the university community on the progress of the QEP. The information on our current QEP website will be merged onto the OURI website to centralize information related to the QEP. Proposal requirements, deadlines, assessment rubrics will also be hosted on the OURI website. The website will be used for submissions of applications for faculty, staff and students for all our QEP initiatives presented in this report, which will create a repository of all submissions, which will assist with tracking growth of our programs.

   b. Disseminating Information on Existing Co-Curricular Opportunities through Collaborations with Programs with Shared Goals.

Several recent reports and publications have advocated for the critical role of experiential learning in undergraduate education. Additionally, by engaging students in the community, these experiences allow students to explore "entrepreneurial applications" and consider "policy implications" (*CUR Quarterly,* April 2012). The QEP Steering Committee has identified best practices at FAU for collaborating with other programs offering experiential educational experiences. These include internships, international projects and those involving community partners. In July 2012, the QEP Steering Committee invited several representatives from these programs to meet and share information about what existing opportunities are available for students and best practices for disseminating the information. Through these discussions, we identified a need for better communication and coordination among the groups to provide services and information for our students, faculty and community partners.

FAU has recently centralized this initiative, through an online job portal system managed by the Career Development Center called OWL Career Link. Two individual colleges (Engineering and Computer Science and Business) have merged their internal systems and database for college-

specific student internships and other job postings into FAU's centralized online job portal. However, most of the other programs only provide information through website updates by which students and faculty obtain information about these co-curricular opportunities. Initially the Office of Undergraduate Research and Inquiry website will serve as a clearinghouse of information on existing opportunities and resources for students and faculty. We have already begun discussions of re-branding the existing research landing page, which currently links to the Division of Research website, to provide unified resources and information from Academic Affairs and Student Affairs for students (undergraduate and graduate), faculty and community partners on all research and inquiry opportunities. This landing page will be maintained by the QEP unit with help from Division of Research and Graduate Studies, Career Development Center, Office of International Programs, Weppner Center for Civic Engagement & Service and other programs. We anticipate establishing additional opportunities for students and faculty through further collaborations with these groups. Additional discussions are currently underway to further utilize this web-based system as a central database for all internships and job opportunities for students, alumni, and community partners within the other colleges.

2. Establish an Undergraduate Research and Inquiry Steering and Sub-Committees

Support of, coordination among, and communication between collaborators in a university-wide initiative such as Distinction through Discovery are crucial keys to its success. In Spring 2013, OURI will establish an undergraduate research and inquiry (URI) steering committee and additional sub-committees. The current QEP steering committee will transition to become the URI Steering Committee in Fall 2013, and will be chaired by the OURI Director. The Steering Committee will include faculty, staff and student representatives from all colleges and partner-campuses. The Committee will meet bi-monthly or as needed with the OURI Director, to guide the Distinction through Discovery implementation and support the expansion of the culture of undergraduate research and inquiry, including identifying keynote speakers and judges for events, coordination of organization, marketing and evaluation of current efforts and to work together to establish additional opportunities for FAU students to showcase their research and inquiry efforts. The steering committee will be divided into a series of sub-committees to include a Curriculum Committee, Co-curricular Committee, Recognition Committee, Assessment Committee, and Marketing Committee. Details of the Sub-committees roles will be provided in Chapter 7.

3. Collaborate with Undergraduate Research and Inquiry Partner Programs

Engaging undergraduate students in a culture of research and scholarship will require fundamental changes in the way students and faculty think about curricula, research, scholarship, and the relationships among them. Instituting these changes will require participation and resources throughout the entire university. Through our efforts with the QEP, we have established a series of Undergraduate Research and Inquiry Partner programs who have been instrumental from the start in the development, establishment and implementation of this plan and who are currently providing in-kind support for our pilot programs underway. These groups will continue to play an instrumental role by providing resources for the common goal of an enhanced institution with a unified mission for students, faculty and staff and by continued collaboration with OURI through serving on the Undergraduate Research and Inquiry Steering Committee.

Center for e-Learning

The Center for e-Learning (CeL) at FAU is committed to increasing access to education, improving student-learning outcomes, and effectively utilizing technology in course delivery redesigns. The Center works with colleges, faculty, and other administrative units to provide funding, training, consulting, and supporting e-Learning initiatives at FAU. Cel offers a variety of professional development programs to support faculty interested in integrating technology and digital media in e-Learning academic program development. The Center for e-Learning currently co-hosts a Teaching with Technology Showcase with the Scholarship of Teaching Office (SoTO) and the Office of Information Technology (OIT).

CeL is fully committed to support the QEP. CeL will provide instructional designer assistance to develop eLearning research and inquiry courses and programs, consult with faculty members establishing research and inquiry courses or developing research skills modules to be delivered in the e-Learning environment, collaborate to develop an e-Learning student orientation module specifically for students interested in research and inquiry, collaborate to develop online research and inquiry tutorials or tools, collaborate with OURI through steering committee participation, and potential research and inquiry track for the planned Teaching with Technology Showcase.

Center for Learning and Student Success

The Center for Learning and Student Success (CLASS) supports the mission of the University and promotes undergraduate student success and retention. CLASS, under the Division of Undergraduate Studies, manages Learning Communities (LC): cohorts of first-year students with similar academic goals and interests; Supplemental Instruction (SI) and Tutoring: peer-facilitated study sessions and general tutoring in a variety of disciplines; and student success programs, workshops and retention counseling initiatives.

CLASS is partnering with the Quality Enhancement Plan and will continue to do so through the Office of Undergraduate Research and Inquiry. CLASS offered a curricular initiative with the Learning Communities as part of the pilot program in Fall 2012 (previously described under Goal 1). CLASS commits to providing training for faculty teaching SLS courses on integrating research and inquiry, explicitly integrate research and inquiry pedagogies into SLS courses; promoting research and inquiry opportunities to faculty and students through programs offered and collaborating with OURI through steering committee participation. CLASS commits to ensuring all Learning Communities supported by their office have either a Research and Inquiry component or an Academic Service Learning emphasis.

Harbor Branch Oceanographic Institute (HBOI)

FAU's Harbor Branch Oceanographic Institute's mission is to explore, protect and wisely use ocean resources, articulated as Ocean Science for a Better World®. Harbor Branch scientists, engineers and support staff are leaders in ocean-related innovation, exploration, research, education and conservation. HBOI currently engages students through a variety of programs and offerings including the Marine Science Education Programs, a Summer Intern Program, a Semester by the Sea program and Directed Independent Study (DIS) opportunities.

HBOI faculty and staff fully commit to supporting the QEP and will provide opportunities for undergraduate researchers to pair with HBOI faculty through existing fellowships and programs and collaborate with OURI through steering committee participation.

Harriet L. Wilkes Honors College

FAU's Wilkes Honors College offers a Bachelor of Arts degree in Liberal Arts and Sciences, with majors or concentrations in 24 different disciplines. The purpose of the Honors College is to offer students a liberal arts education of the highest intellectual and scholarly standard. Small class size, rigorous requirements, and an emphasis on interdisciplinary study anchor a community of dedicated faculty and a talented, diverse student body. All courses offered are honors courses, and students culminate their academic experience by writing an honors thesis or completing a senior project. Students are afforded an abundant number of opportunities to conduct research alongside faculty members, and to publish or present discoveries. The Honors College takes pride in providing all the advantages of a small selective liberal arts college with full access to a large research and teaching university.

The Honors College will support the establishment of honors courses in majors in all partner campuses, provide best practices through rubrics, operational processes and practices, promote research and inquiry opportunities to all honors students and collaborate with OURI through steering committee participation.

Scholarship of Teaching Office

The Scholarship of Teaching Office (SoTO) facilitates professional development in the areas of teaching and learning and sustains a culture of "best practices" in effective pedagogy. SoTO seeks to promote a community of "scholarly teachers" who use the tools of inquiry to improve their teaching and add to the body of professional knowledge. SoTO organizes and supports workshops, seminars, brown bag lunches, presentations, faculty learning communities, a Master Teacher Program, and one-on-one consultations. All events are open to FAU's graduate assistants, faculty, staff, and administrative personnel on all campuses.

SoTO will provide faculty and student professional development through brown bag lunches, host faculty learning communities including QEP-focused FLCs and assist with peer mentoring training. SoTO will collaborate with OURI through steering committee participation

The University Center for Excellence in Writing

The Writing Center, also known as the University Center for Excellence in Writing, supports and promotes writing for all members of the FAU community. UCEW serves to provide writing instruction across the curriculum that supports the academic, professional, and personal needs of our diverse academic community. Graduate and undergraduate Writing Center consultants help clients with all levels of writing skill at any point in the writing process. The Center sponsors workshops on common writing issues and engages in research on effective tutoring strategies.

The Writing Center will support student research writing sponsored by the QEP process by providing additional consultations for these students and linking individual consultants to specific programs. By the last year of the QEP process, the UCEW should be serving an additional 38 sessions a week dedicated to research writing. In addition the writing center will provide serve as a source of research and inquiry projects, collaborate on student professional development opportunities and collaborate with OURI through steering committee participation

Writing Across the Curriculum Program

The University's Writing Across the Curriculum (WAC) program, promotes the teaching and learning of writing across all levels and all disciplines, with a primary focus on writing in undergraduate education. WAC assists colleges, departments, and faculty with all aspects of the teaching of writing and reading in their disciplines. The WAC program is designed to convert all state recognized Gordon Rule (GR) classes to a more rigorous set of university-supported guidelines.

The WAC program is partnering with the Quality Enhancement Plan and will continue to do so through the Office of Undergraduate Research and Inquiry. The WAC program offered a pilot training program in late July 2012 with the School of Accounting as part of the pilot program in fall 2012. Two-day workshops are being tailored for each participating department. The Assistant Director of WAC will provide ongoing support for these programs as well. The WAC program will collaborate on faculty development through brown bag lunches and workshops and provide faculty support for departments that are developing research and writing-based programs and courses to meet SLO requirements.

University Libraries

The FAU Libraries include the Wimberly Library, main Boca campus, and its partner campuses. The primary objective of the FAU Libraries is to assist students and faculty in locating appropriate, quality information to address questions and aid in the research and inquiry process. The emphasis is on instruction both formally in groups and informally at the reference desks. The libraries' holdings are extensive including print volumes, electronic monographs and electronic serials, made available to off-campus students and faculty remotely. The Libraries' digitization unit maintains a digital repository containing faculty papers and publications and University Archives. The Library provides extensive instructional activities through sessions to accommodate student needs. Resource Guides, LibGuides, are available as subject resources and as supplements to class sessions. Embedded librarians work with faculty within course frameworks to customize instruction for students.

The Library is fully committed to support the program goals of the Quality Enhancement Plan by supporting faculty, staff and students. The Libraries will host the Undergraduate Research Journal through the FAU Digital Library Open Journal Publishing, archive FAU undergraduate honors theses and symposia abstracts, provide expertise and resources for faculty and students through the curriculum grants program, serve as a source of research and inquiry projects, serve as a venue for showcasing research and inquiry and collaborate with OURI through steering committee participation.

Undergraduate Studies

The mission of Undergraduate Studies is to assure that FAU provides baccalaureate degree programs which are of the highest academic quality irrespective of their location or method of delivery within the distributed campus structure of FAU. This is achieved through participation in the planning, implementation, review and periodic revision of those programs which include the general education curriculum, and discipline-specific majors. Advancement of this mission is supported by a number of ancillary academic services including: Freshman Academic Advising Services, Center for Teaching and Learning encompassing the Center for Learning And Student Success, Math Learning Center, the Director for the Scholarship of Teaching, the Quality

Enhancement Plan (QEP) Director, the University Center for Excellence in Writing, and Writing Across the Curriculum Program; Office of International Programs; Student-Athlete Center for Academic Excellence; Testing and Evaluation; and the University Honors Program.

Undergraduate Studies will partner with the QEP to promote research and inquiry opportunities through the University Honors program, collaborate on integrating research and inquiry into Intellectual Foundations courses, collaborate with OURI through steering committee participation and assist with implementing the curriculum grants program and spring symposium.

In addition to these key partner programs, additional university-wide programs have committed to formally collaborate with FAU's Distinction through Discovery QEP. We present the entire list of university-wide collaborators and their commitments in Table 9.

Table 9. University-Wide Collaborators and Their Commitments

QEP Collaborators	Commitments to the URI efforts through QEP
Student Government	Promote research and inquiry opportunities; support research and inquiry dissemination through travel grant program and purchasing of poster boards;
Division of Research and Graduate College	Provide seed grant money for faculty applying for external grants related to undergraduate research and inquiry; provide training and support for students in responsible conduct of research through IRB, IACUC and CITI training; Promote and communicate undergraduate research and inquiry opportunities to faculty and students; collaborate on a quarterly newsletter showcasing all research and scholarship; collaborate on peer-mentoring training program; collaborate on research symposia for undergraduates; Collaborate with OURI through steering committee participation;
Assessment and Instruction	Provide data and collaborate on assessment and integrate QEP into ongoing assessment initiatives currently underway
Career Development Center	Collaborate to establish research and inquiry internships and Co-op's. Provide informational seminars for faculty to increase knowledge about Co-op/Internship Program and increase student participation in research and inquiry opportunities. Faculty involvement in monitoring the academic credit bearing research and inquiry internships/Co-op's along with referring industry contacts for such opportunities;
Weppner Center for Civic Engagement & Service	Collaborate to establish community-based research projects for academic service-learning courses; Collaborate to provide: instructional workshops for faculty on incorporating A S-L into courses, hosting faculty-community connections opportunities, and showcasing student work in Fall and/or Spring semesters. Promote research and inquiry opportunities to students;
Office of International Programs	Collaborate to increase international study abroad research opportunities for faculty and students; Promote international research and inquiry opportunities to students;

Institutional Effectiveness and Analysis	Provide data and collaborate on assessment for annual QEP reports
Office of Admissions	Promote research and inquiry opportunities to recruit students;
Student Advising	Promote research and inquiry opportunities to students;
Marketing and Creative Services	Promote research and inquiry opportunities; Support OURI website; Support the development of promotional materials marketing undergraduate research and inquiry
Office of Information Technology	Support OURI website; collaborate to establish promotional videos and other student and faculty showcases
Office of the Registrar	Support annual QEP assessment; support research and inquiry designated courses and certificate program; support honors designation on students transcripts

4. A Plan Within the Plan to Address FAU's Unique Student Population.

    a. FAU Partner Campuses

FAU's distributed campus setting provides a unique environment to expand this culture. To ensure that opportunities are made available to all students and faculty on all campuses, communicating opportunities and needs becomes crucial to ensure success of this initiative. In addition to ensuring that all opportunities are made available to all students and faculty on our campuses through the OURI and website, we propose the following specifics:

1. There will be one partner campus liaison from both the Wilkes Honors College and Harbor Branch Oceanographic Institute serving on the URI Steering committees and appropriate sub committees (a continuation of the existing QEP Steering committee). In addition, FAU has committed to providing two additional partner campus liaisons from the Provost's office from both the Northern and Davie campus to permanently serve on the URI Steering committee and appropriate sub committees. These liaisons will serve as the point person on those campuses responsible for the following:
   a. continued hosting of annual research symposia to showcase student projects and collaborate on showcasing student projects through web, media and print.
   b. disseminating information to students and faculty about URI initiatives and opportunities
   c. providing assessment data related to research and inquiry for all 4 goals of the QEP
   d. providing an up-to-date list of campus and department specific undergraduate research and inquiry opportunities semesterly. This updated information will be provided to OURI periodically to ensure the information on the OURI website is accurate.
   e. facilitating professional development opportunities for students and faculty on partner campuses.
2. We will ensure that our partner campuses are represented in the Master faculty Mentor program.
3. OURI will serve all FAUs campuses, and will collaborate with the partner campus liaisons to ensure the office meets the needs of our students and faculty.

b. FAU Transfer student population

Since a high percentage of FAU students are transfer students and the majority of students do not live on-campus, our Distinction through Discovery initiative aims to engage these students in the following ways:
1. OURI will partner with the Division of Student Affairs who hosts Transfer Orientation to ensure information related to undergraduate research and inquiry opportunities are provided to students during orientation
2. All students taking courses at FAU will be engaged in research and inquiry through the QEP's curricular initiatives. This program focuses on the upper division for the first three years targeting the transfer student population.

c. FAU Part-time and Commuter student population

Engaging part-time and commuter students who have additional time constraints poses a challenge. Our steering committee reached out to other institutions that serve this unique audience. Feedback was received from colleagues in The University of Nevada, Las Vegas and The University of Illinois, Springfield and through their recommendations, we provide the following suggestions:
1. Our SURF fellowship may serve as the best opportunity for these students. Interested students can opt to engage in these paid research opportunities during the summer as an alternative to other jobs.
2. We will encourage faculty to have flexible research hours for students.
3. Faculty mentors and their students will be encouraged to use web and other social media tools that will allow for communication for asynchronous progress on research and inquiry. FAU provides training for video capturing and embedding in WebCT so that visual communication can happen.

d. Expanding participation in all colleges:

Data from all three University-wide research and inquiry offerings (Chapter 2) identified a need to broaden participation in under-represented colleges. Within our plan, we intend to increase participation in these colleges in the following ways.

1. The Marketing Committee will actively recruit submissions from those colleges, and in Year 1, the Steering Committee will earmark 15% of the undergraduate research grants to students from those under-represented colleges. Evaluation of future allocations will be made based on analysis of participation in future years.
2. The College of Business is an active participant in the Curriculum honors pilot program in Fall 2012 and the Colleges of Education and Nursing have already expressed interest in developing undergraduate research and inquiry focused honors programs (currently approved) and are currently participants in our QEP-focused Faculty Learning community, one main goal of which is to produce strong curriculum grant program proposals for Fall 2013.
3. All colleges have had faculty representatives on the QEP steering committee, who were instrumental in developing this plan. Faculty representatives will continue to serve a role through steering and sub-committee participation.

Chapter 6: Timeline

We have established a timeline for the actions identified through our Distinction through Discovery plan. The timeline includes projects already completed and the pilot plan and assessments currently underway during the Pre-QEP years. It also includes future plans for our QEP that will be gradually passed in and manageably implemented within the five-year timeframe. Some of our action items are implemented in Year 1 while others not until Year 4. Our plans for a research and inquiry- rich curriculum begin Year 1 with upper-division courses and extend to the lower division courses in Year 3.

Activities	2012		2012-2013			Year 1 2013-2014			Year 2 2014-2015			Year 3 2015-2016			Year 4 2016-2017			Year 5 2017-2018		
	Spring	Sum'r	Fall	Spring	Sum'r	Fall	Spring	Sum'r	Fall	Spring	Sum'r	Fall	Spring	Sum'r	Fall	Spring	Sum'r	Fall	Spring	Sum'r
Goal 1: Research and Inquiry Rich Curriculum																				
1. Upper Division Curriculum Grants Program																				
a.i. Establish Pilot Honors Program Guidelines	▓	▓																		
a.ii. Implement Pilot Honors Program			▓	▓																
b.i. Establish Guidelines for Upper Division Curriculum Grants Program			▓																	
b.ii. Call for UD Curriculum Proposals							▓			▓			▓			▓			▓	
b.iii. Implement UD curriculum seed grant program						▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
2. Lower Division Curriculum Grants Program																				
a. i. Implement Pilot Program for Freshman Learning Communities			▓	▓																
a.ii Implement QEP focused Freshman Learning Communities						▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
b.i. Establish Guidelines for Lower Division Curriculum Grant Program									▓	▓										
b.ii. Call for Lower Division Curriculum Proposals												▓	▓		▓	▓				
b.iii. Implement Lower-division Curriculum Grant Program												▓	▓	▓	▓	▓	▓	▓	▓	▓
Goal 2: Opportunities for students who engage in URI																				
1. Undergraduate Research Grants Programs																				
a. Expand existing Undergraduate Research Grants Program				▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
b.i. Develop new SURF Applications						▓			▓			▓			▓			▓		
b.ii. Call for Faculty Proposals SURF							▓			▓			▓			▓			▓	
b.iii. Call for Student Applications SURF							▓			▓			▓			▓			▓	
b.iv. Implement SURF								▓			▓			▓			▓			▓
c. Solicit support from external sources						▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
2. Student Dissemination Opportunities																				
a.i. Develop guidelines for expanded Spring Symposium							▓													
a. ii. Expand Spring Symposium							▓			▓			▓			▓			▓	

Activities	2011-2012		2012-2013			Year 1 2013-2014			Year 2 2014-2015			Year 3 2015-2016			Year 4 2016-2017			Year 5 2017-		
	Spring	Sum'r	Fall	Spring	Sum'r	Fall	Spring	Sum'r	Fall	Spring	Sum'r	Fall	Spring	Sum'r	Fall	Spring	Sum'r	Fall	Spring	Sum'r
b.i. Establish FAURJ Website	█																			
b.ii. Call for FAURJ Manuscripts				█			█			█			█			█			█	
b.iii. Peer-review FAURJ manuscripts		█			█			█			█			█			█			█
b.iv. Publish FAURJ			█			█			█			█			█			█		
c. Facilitate Student Travel funding					█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Goal 3: Support and recognition for Faculty and Students in URI																				
1. Faculty support and recognition																				
a. Enhanced CUR Institutional Membership		█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
b.i Implement pilot program for QEP-focused FLCs			█	█																
b.ii Implement QEP-focused FLCs				█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
c. Faculty Professional Development workshops		█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
d.i. Establish guidelines for Master research mentor program						█	█													
d.ii Call for College Master research mentor applicants							█							█						█
d.iii Implement Master Research and Inquiry Mentors									█	█	█	█	█	█	█	█	█	█	█	█
e.i Establish guidelines for Distinguished undergraduate mentor				█																
d.ii. Implement Award program						█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
2. Student support and recognition																				
a. Host student research training program						█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
b. Offer student professional development workshops						█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
c. Establish Student Club - CSI	█	█																		
d.i Establish guidelines for Peer mentoring program				█																
d.ii Call for applicants for Peer mentor program				█					█			█			█			█		
d.iii Implement Peer Mentoring Program						█	█	█	█	█	█	█	█	█	█	█	█	█	█	█

Activities	2011-2012 Spring	Sum'r	2012-2013 Fall	Spring	Sum'r	Year 1 2013-2014 Fall	Spring	Sum'r	Year 2 2014-2015 Fall	Spring	Sum'r	Year 3 2015-2016 Fall	Spring	Sum'r	Year 4 2016-2017 Fall	Spring	Sum'r	Year 5 2017-2018 Fall	Spring	Sum'r
e.i Establish student award guidelines for Undergraduate research award							▓	▓												
e.ii Implement Award program				▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
f.i Establish program guigelines for Undergraduate Research & Inquiry Certificate Program												▓	▓							
f.ii Implement Certificate Program															▓	▓	▓	▓	▓	▓
Goal 4: Enrich and Strengthen URI climate																				
1. Office of Undergraduate Research and Inquiry																				
a. Establish space and hire staff																				
b.i Develop OURI Website				▓	▓															
b.ii. OURI Website Live						▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
c.i. Disseminate information of existing and new opportunities through collaboration						▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
2. Undergraduate Research and Inquiry Steering Committee																				
a.i Establish an Undergraduate Research and Inquiry Steering and Sub Committees	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
a.ii Implement plans of the Steering and Sub-Committees	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
b Collaborate with URI Partner Programs	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
Develop, Implement and Evaluate QEP Initiatives																				
a. Recruit QEP External Consultants - Pusateri and Crowe	▓	▓	▓																	
b.i Update QEP Website	▓		▓																	
b.ii QEP Website Live			▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
c.i Develop QEP Marketing Plan		▓	▓																	
c.ii Implement QEP Marketing			▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
d.i Establish Assessment Committee	▓																			
d.ii Recruit assessment coordinator	▓																			
d.iii Establish Assessment Database		▓	▓																	
d. iv Implement QEP Assessment		▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
e. Invite external Evaluator for onsite visit												▓				▓			▓	

Table 10: Timeline for Distinction through Discovery plan of action

Chapter 7: Organizational Structure:

1.   Office of Undergraduate Research and Inquiry (OURI)

FAU will establish the Office of Undergraduate Research and Inquiry (OURI) to serve as the centralized organizational structure supporting the Distinction through Discovery efforts. Four new positions have been (or will be) supported under OURI.

   a) QEP Director to become Director of the Office of Undergraduate Research and Inquiry

Dr. Donna Chamely-Wiik has been appointed QEP Director and will oversee the QEP initiative and establish an Office of Undergraduate Research and Inquiry (OURI) as a centralized office for the QEP, its supporting programs and budget. This position is a full time faculty assignment. The Director will provide coordination and communication of all aspects of the Distinction through Discovery initiative to ensure success and sustainability. The Director will serve on the University-wide Honors Council and collaborate with our Undergraduate Research and Inquiry Partner Programs. The Director will supervise the Budget Coordinator and graduate students associated with the office. The Director will collaborate with the QEP Assessment Coordinator and Steering Committee to monitor the progress of implementation and in consultation with the deans and university provost, modify the plan based on an as needed basis. The Distinction through Discovery initiative will be housed in Undergraduate Studies, as part of the Center for Teaching and Learning, CTL.

   b) QEP Assessment Coordinator

Dr. Patricia Heydet -Kirsch has recently been appointed QEP Assessment Coordinator, a part-time faculty appointment whose responsibility is to lead the assessment efforts of the QEP and its programs. The QEP assessment coordinator will work with the QEP assessment committee, QEP director, the Associate Provost for Assessment and Instruction, Institutional Effectiveness and Analysis and departments and programs as we implement the QEP and assist them in evaluating the success of these initiatives in terms of meeting our learning outcomes and goals of the QEP. The Assessment Coordinator will be a member of TASL – the University Team for Assurance of Student Learning, led by Dr. Janet Cramer, Associate Provost for Assessment and Instruction. The assessment coordinator will continue to ensure that the assessments required for the QEP are coordinated with ongoing university-wide departmental assessments as well as other assessments required for professional programs.

   c) Budget Coordinator for OURI

Ms. Jennie Soberon has been appointed as Budget Coordinator to the QEP, and will serve in both an administrative and budgetary role for this initiative. The budget coordinator's position will initially be ½ time (pre-Year 1) and will become a full time position beginning August 1st, 2013.

   d) Graduate Teaching Assistant for OURI

The office will be staffed with one graduate teaching assistant. The GTA will primarily assist with updating the OURI website with information and opportunities for the university community as well as all marketing and informational events and workshops associated with this initiative. The GTA's responsibility will be to assist the Assessment Coordinator with collecting and analyzing

data associated with QEP programs on an annual basis. The GTA will be members of the Council of Scholarship and Inquiry (CSI).

In addition to the Office of Undergraduate Research and Inquiry, an organizational structure has been established which includes collaboration with existing Undergraduate Research and Inquiry Partner Programs and the establishment of several committees to support communication, implementation, assessment and sustainability of our Distinction through Discovery initiative.

2. Undergraduate Research and Inquiry Steering and Sub Committees

OURI will collaborate with the URI Steering Committee and sub-committees to assist in the implementation and sustainability of the plan. The main steering committee will include representatives from colleges and partner campuses, and other key administrators, faculty and students in the programs. The Steering Committee will serve in an advisory capacity to the Director of the Office of Undergraduate Research and Inquiry. From the main Steering-Committee, a number of sub-committees will be formed.

a. The Curriculum sub-committee will: establish and refine the Student Learning Outcomes; establish and refine the criteria and guidelines for the Distinction through Discovery Undergraduate Curriculum Grant Program and review submitted proposals for funding; and collaborate in the establishment and refinement of the content of the Distinction Through Discovery Faculty Learning Communities. The Curriculum sub-committee will include the Director of the Scholarship of Teaching Office and faculty, staff, and students representing each college and key partner campus.

b. The Co-curriculum sub-committee will: establish and refine criteria and guidelines and evaluate proposals for the Undergraduate Research Grants and SURF awards, Spring Symposium, Master Faculty Mentor and Distinguished Undergraduate Research and Inquiry Faculty and Student of the Year Awards and Peer Mentor applications. The Co-curriculum sub-committee will include the OURI Director, representatives from each colleges, key-partner campuses and students.

c. The Assessment Committee will: develop an assessment plan to include curricular and co-curricular direct and indirect measures, review assessment data, generate reports, and provide recommendations for modifications to the plan. The Assessment committee will be comprised of the QEP Coordinator of Assessment, student and faculty representatives from programs engaged in QEP programs, Partner Campus liasons, Information Technology representative, TASL representative, Faculty engaged in Faculty Learning Communities, and a representative from the Office of the Registrar.

d. The Marketing sub-committee will: collaborate with OURI to advertize opportunities for faculty, staff and students in all colleges and on all campuses, to ensure there is widespread distribution of information related to our Distinction through Discovery plan. This sub-committee will include the OURI Director, graduate assistant and CSI member, Partner Campus liaisons, representatives from the Office of Information Technology, Marketing and Creative Services, Student Government, the Division of Research, and Admissions and include other faculty, staff and students as needed.

Figure 18 below provides the organizational structure of Distinction through Discovery

Figure 18: University Administration and the Quality Enhancement Plan
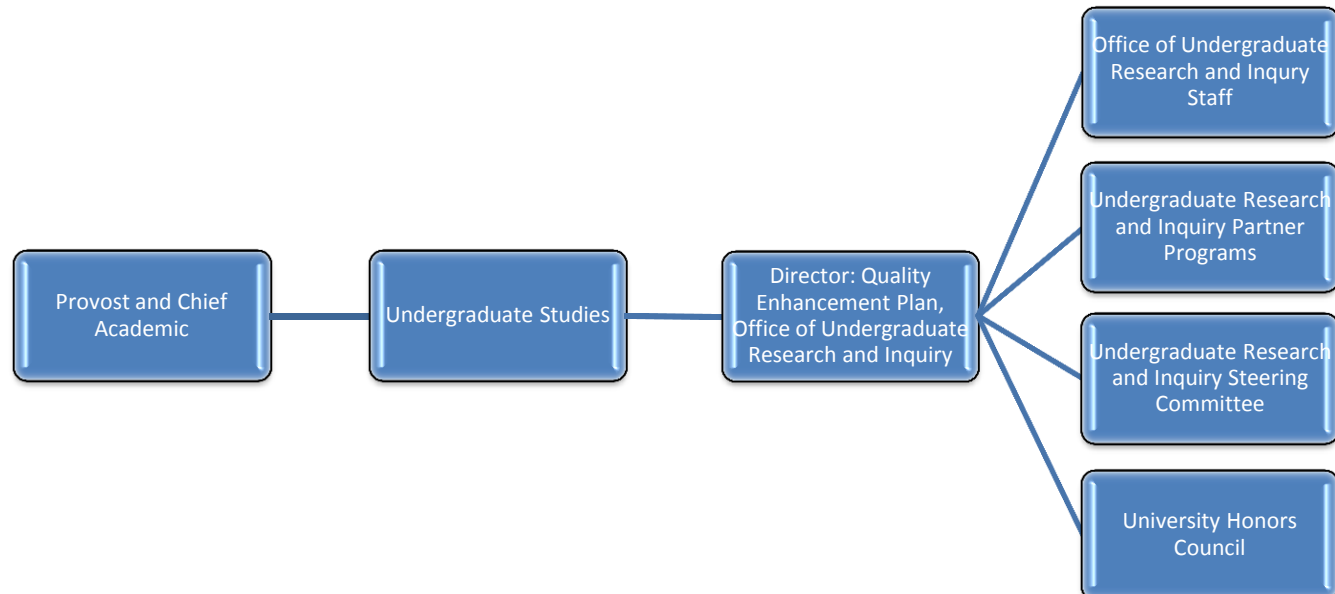
3. Academic Administrative Roles and Responsibilities

In addition to the URI partner programs and steering committee members, other key academic administrative and faculty leaders will have roles in implementing and sustaining our Distinction through Discovery plan. We present their roles in Table 11.

Table 11: Academic Administrative roles and responsibilities

Administration Leadership	Roles and responsibilities
University President	Ultimately responsible for the administrative oversight of all university initiatives, including FAU's Quality Enhancement Plan: Distinction Through Discovery. Responsible for updating the Board of Trustees and Board of Governors at appropriate meetings and venues
University Provost	Serves as the Chief Academic Officer of the university. Promotes College participation through the Council of Deans committee; monitors progress of the plan including student learning outcomes, goals and objectives as well as milestones established; provides guidance and recommendations to enhance the Distinction through Discovery initiative through ongoing assessments
Academic Deans	Oversee faculty research and inquiry activities in their colleges. Encourage and facilitate

	faculty participation in Distinction through Discovery initiatives; assist with communication of opportunities to faculty and students in their departments
Department Chairs	Encourage and enable faculty and student involvement in the Distinction through Discovery initiative; assist with communication of opportunities to faculty and students in their department; maintain discipline-specific existing undergraduate research and inquiry opportunities on departmental websites
Faculty Members	Participate in faculty professional development, curriculum grant offerings, co-curricular initiatives as appropriate; Serve as college-specific Master Mentors, and student mentors; Integrate and evaluate Distinction through Discovery curricular initiatives and student learning outcomes. Utilize services provided by the Office of Undergraduate Research and Inquiry; engage students in undergraduate research and inquiry

The organizational structure presented was designed to ensure success and sustainability of the Distinction through Discovery initiative. As the initiative is implemented, accommodations in its organizational structure including additional personnel or collaborations with other groups will be considered as needed.

Chapter 8: Budget

Our Distinction through Discovery initiative is a major priority for FAU as evidenced in the University's Strategic Plan 2012-2017. The institution is fully committed to supporting this initiative from development to implementation, and ensuring its sustainability beyond the QEP timeframe. FAU has committed both new and in-kind financial, physical and human resources to support this initiative. The QEP Steering Committee carefully examined and refined the plan of action and timeline for implementation during the planning process, and established annual budgets to reflect the necessary resources to carry-out this plan. The University will invest approximately $3 million over the six-year implementation of the QEP (including pre- QEP year). The steering committee also identified and secured in-kind support from operating budgets of existing programs to supplement new money provided to the QEP. As program development and implementation costs are determined more clearly following discussions with faculty, department chairs and others, adjustments may be needed in the budget estimates to better reflect modified goals and needs. All budget-related expenses will be administered, tracked and evaluated through the Office of Undergraduate Research and Inquiry. Table 12 summarizes the six-year total budget for the QEP including in-kind contributions.

	Pre-QEP Fall 2012-Summer 2013	Year 1 Fall 2013-Summer 2014	Year 2 Fall 2014-Sumer 2015	Year 3 Fall 2015-Summer 2016	Year 4 Fall 2016-Summer 2017	Year 5	Total All Years
Goal 1: Curricular Enrichment (Lower and Upper)							
New funds Goal 1	$22,500	$60,000	$65,000	$125,000	$125,000	$115,000	$512,500
In-Kind Goal 1	$4,500	$9,500	$9,500	$9,500	$9,500	$9,500	$52,000
Total Goal 1	**$27,000**	**$69,500**	**$74,500**	**$134,500**	**$134,500**	**$124,500**	**$564,500**
Goal 2: Expanded Co-currifular opportunities							
New funds Goal 2	$25,000	$56,300	$63,100	$73,700	$84,000	$90,000	$392,100
In-Kind Goal 2	$44,400	$69,500	$69,500	$69,500	$69,500	$69,500	$391,900
Total Goal 2	**$69,400**	**$125,800**	**$132,600**	**$143,200**	**$153,500**	**$159,500**	**$784,000**
Goal 3: Faculty and Student Support and Recognition Initiatives							
New funds Goal 3	$42,625	$54,200	$99,100	$110,250	$138,150	$138,300	$582,625
In-Kind Goal 3	$18,800	$23,250	$23,250	$23,250	$23,250	$23,250	$135,050
Total Goal 3	**$61,425**	**$77,450**	**$122,350**	**$133,500**	**$161,400**	**$161,550**	**$717,675**
Goal 4: Enrich and Strengthen URI climate at FAU							
New funds Goal 4	$147,847	$207,737	$213,180	$218,769	$224,525	$230,453	$1,242,511
In-Kind Goal 4	$47,800	$67,800	$67,800	$67,800	$67,800	$67,800	$386,800
Total Goal 4	**$195,647**	**$275,537**	**$280,980**	**$286,569**	**$292,325**	**$298,253**	**$1,629,311**
QEP Development, Implementation and Assessment							
New funds	$70,650	$34,145	$40,169	$36,224	$42,311	$43,430	$266,929
In-Kind funds	$13,500	$105,000	$105,000	$105,000	$105,000	$105,000	$538,500
Total Assessment	**$84,150**	**$139,145**	**$145,169**	**$141,224**	**$147,311**	**$148,430**	**$805,429**
Total ALL GOALS	**$437,622**	**$687,432**	**$755,599**	**$838,993**	**$889,036**	**$892,233**	**$4,500,915**
Total In-Kind funding	$129,000	$275,050	$275,050	$275,050	$275,050	$275,050	$1,504,250
Total New Funding	$308,622	$412,382	$480,549	$563,943	$613,986	$617,183	$2,996,665

Table 12: Distinction through Discovery Budget including new and in-kind funding

Budget Justification Detail:

Goal 1: Curricular Enrichment (Lower and Upper)
  a. Pilot program for 3 honors in the major program: pre Year 1 = $22,500. Total $22,500
  b. Upper division curriculum grant program: $60,000 Yr. 1, $65,000 Yr. 2, $55,000 Yr. 3, $50,000 Yr. 4, and $40,000 Yr. 5. Total upper division all years = $270,000
  c. Lower division curriculum grant program: $70,000 Yr. 3, $75,000 Yrs. 4 and 5. Total lower division all years = $220,000
  d. In-kind funding includes: Collaborative curriculum grant programs from WAC, eLearning and CLASS and administrative support from CLASS. Total in-kind all years = $52,000

Goal 2: Expanded Co-curricular opportunities
  a. Expanded Undergraduate Research Grants Program: $18,000 Pre. Yr. 1, $24,000 Yr. 1, $27,000 Yr. 2, $30,000 Yr. 3, $36,000 Yr. 4 and $42,000 Yr.5. Total all years = $177,000
  b. Summer Undergraduate Research Fellowship, SURF @ $3300 per fellowship. $19,800 Yr. 1, $23,100 Yr. 2, $29,700 Yr. 3, $33,000 Yrs. 4 and 5 and $40,000 Yr. 5. Total SURF all years = $138,600
  c. Expanded Spring Undergraduate Research Symposium: $2,000 Pre Yr. 1, $2,500 Yr. 1, $3,000 Yr. 2, $4,000 Yr. 3, and $5,000 Yrs. 4 and 5. Total all years = $21,500.
  d. Undergraduate research Journal editorial support: $5,000 Pre Yr. 1, $10,000 Yrs. 1-5. Total all years = $55,000
  e. In-kind funding includes: Existing funds associated with the current Undergraduate Research grants ($30,000 annually) and Annual Symposia ($8,000 annually) to be re-allocated to the QEP (from Clearwire funding). Student Government support through CSI, Student Travel to conferences, purchasing additional poster boards for Research Symposium. Division of Research Seed Grant support and administrative support. Undergraduate Studies administrative support. Total in-kind all years = $391,900

Goal 3: Faculty and Student Support and Recognition
  a. Council of Undergraduate Research and Inquiry expanded institutional membership. $4,000 Pre Yr. 1- Yr. 5 . Total all-years = $24,000
  b. QEP focused Faculty Learning Communities: 2 x $12,500 = $25,000 Pre Yr. 1 – Yr. 5. Total all-years = $150,000
  c. Faculty workshops and programs to include cost of materials, books, food, small stipends, etc.: $1,250 Pre Yr. 1, $1,500 Yr. 1, $2,000 Yr. 2, $2,500 Yr. 3, $3,000 Yrs. 4 and 5. Total all-years = $13,250
  d. Professional development for research writing enriched curriculum: $5,000 Pre Yr. 1 – Yr. 5. Total all-years = $25,000
  e. Faculty Travel for professional development: $10,000 Pre Yr. 1 – Yr. 5. Total all-years = $60,000
  f. Master Faculty Mentor Program: $30,000 Yr. 2, $40,000 Yr.3, $60,000 Yrs. 4 and 5. Total all-years = $190,000
  g. Faculty mentors of grant recipients- CUR book, Mentoring Undergraduates: $1,125 Pre Yr.1, $12,00 Yr. 1, $1,350 Yr. 2, $1,500 Yr. 3, $1,650 Yr. 4, $1,800 Yr. 5. Total all-years = $8,625.
  h. Distinguished Undergraduate Research Mentor Awards: $3,000 Yrs. 2-5. Total all-years = $12,000
  i. Student workshops and programs to include cost of materials, books, food, small stipends, etc.: $1,250 Pre Yr. 1, $1,500 Yr. 1, $2,000 Yr. 2, $2,500 Yr. 3, $3,000 Yrs. 4 and 5. Total all-years = $13,250

    j. UCEW support for capstone writing projects: $6,750 Yrs. 2 and 3, $13,500 Yrs. 4 and 5. Total all-years = $40,500

    k. Peer Mentoring Program. $6,000 Yrs. 1-5. Total all-years = $30,000

    l. Undergraduate student research awards: $4,000 Yrs. 2-5. Total all-years = $16,000

    m. In-kind funding includes: Administrative support for faculty and student professional development from SOTO, eLearning, CLASS, WAC, Division of Research and Graduate College. Administrative support for marketing from Marketing and Creative Services, OIT and Division of Research and Graduate College. Total in-kind all years = $135,050.

Goal 4: Infrastructure to enrich climate

    a. OURI Staff including Faculty Director (12-month all years) ,Budget coordinator (0.375 Pre Yr. 1, full-time Yrs. 1-5) and Graduate Student Assistant (20-hours per week Pre-Yr. 1 – Yr. 5) salary and fringe benefits with potential 3% increase annually to be allocated based on other university distribution. $ 128,847 Pre Yr. 1, $191,237 Yr. 1, $196,680 Yr. 2, $202, 269 Yr.3, $208, 025 Yr. 4 and $213, 953 Yr. 5. Total all-years $1,141,011.

    b. Office Setup (computers, phones, printers etc.): $5000 Pre-Year 1. Total = $5,000

    c. General administrative costs for OURI. $9,000 Pre Yr. 1 – Yr. 5. Total all-years = $54,000

    d. Travel allocation for the Director to attend SACS, CUR and other conferences: $5000 Pre-Yr. 1 – Yr. 5. Total all-years = $30,000

    e. Marketing QEP and OURI - $2,500 Yrs. 1-5. Total all-years = $12,500

    f. In-kind funding includes: University Space allocation for OURI; Administrative support from Undergraduate Studies, Wilkes Honors College, Center for Teaching and Learning, Steering Committee members from colleges and departments. Website and marketing support from Marketing and Creative Services and OIT. Total in-kind all years = $386,800.

QEP Development, Implementation and Assessment

    a. QEP External Evaluators: $ 12,000 Pre-Yr. 1, $5,000 Yrs. 2, 4 and 5. Total all-years = $27,000

    b. SACS Lead evaluator (onsite visit): $ 3,000 Pre-Yr. 1. Total all-years = $3,000

    c. QEP Document editor: $2,500 Pre Yr. 1. Total all-years = $2,500

    d. QEP Assessment coordinator (Faculty 0.375%) salary and fringe benefits with potential 3% increase annually to be allocated based on other university distribution. $33,150 Pre Yr. 1, $34,145 Yr. 1, $35,169 Yr. 2, $36,224 Yr. 3, $37,311 Yr. 4, $38,430 Yr. 5. Total all-years = 214,429.

    e. QEP Marketing $20,000 Pre Yr. 1. Total all-years $20,000

    f. In-kind funding includes: Administrative and Technical support for QEP Assessment and Marketing support from the College of Arts and Letters. Total in-kind all years = $538,500

Total new money all goals = $2,999,665.

Chapter 9: Assessing the Effectiveness of the *Distinction through Discovery* Learning Initiative

The plan for assessing the effectiveness of the Distinction through Discovery Learning Initiative at Florida Atlantic University includes an infrastructure and a coherent timeline to support the collection of evidence for the achievement of student learning outcomes and program goals. The design of the plan provides a framework for evidence that undergraduate students learn to apply the knowledge and skills identified, and that the university collects information to use in the evaluation and planning for improvements of the QEP program components. The Offices of the President, the Provost, and the Director of Strategic Planning and Institutional Technology will partner with faculty and the QEP Assessment Committee to implement the assessment plan.

<u>Organizational Structure in support of QEP Assessment</u>

The responsibility for and dedication to the assessment of the QEP is shared by the Coordinator of QEP Assessment, the QEP Assessment Committee and several layers of stakeholders. Assessment of curricular impact is structured at the implementation level (QEP-supported curriculum grant PIs and Program Coordinators), the program/course level (Department Chairs and program faculty, and the student level. this assessment involves student measures of achievement of QEP SLOs and other curricular outcomes. Assessment of institutional impact is organized at the dean level, the department chair level, and the level of other supporting units across the institution. . Assessments related to institutional impact include measures of participation in co-curricular activities, student enrollment and retention, and perceptions of QEP constituents. A graphic depiction of this organizational structure is presented below:

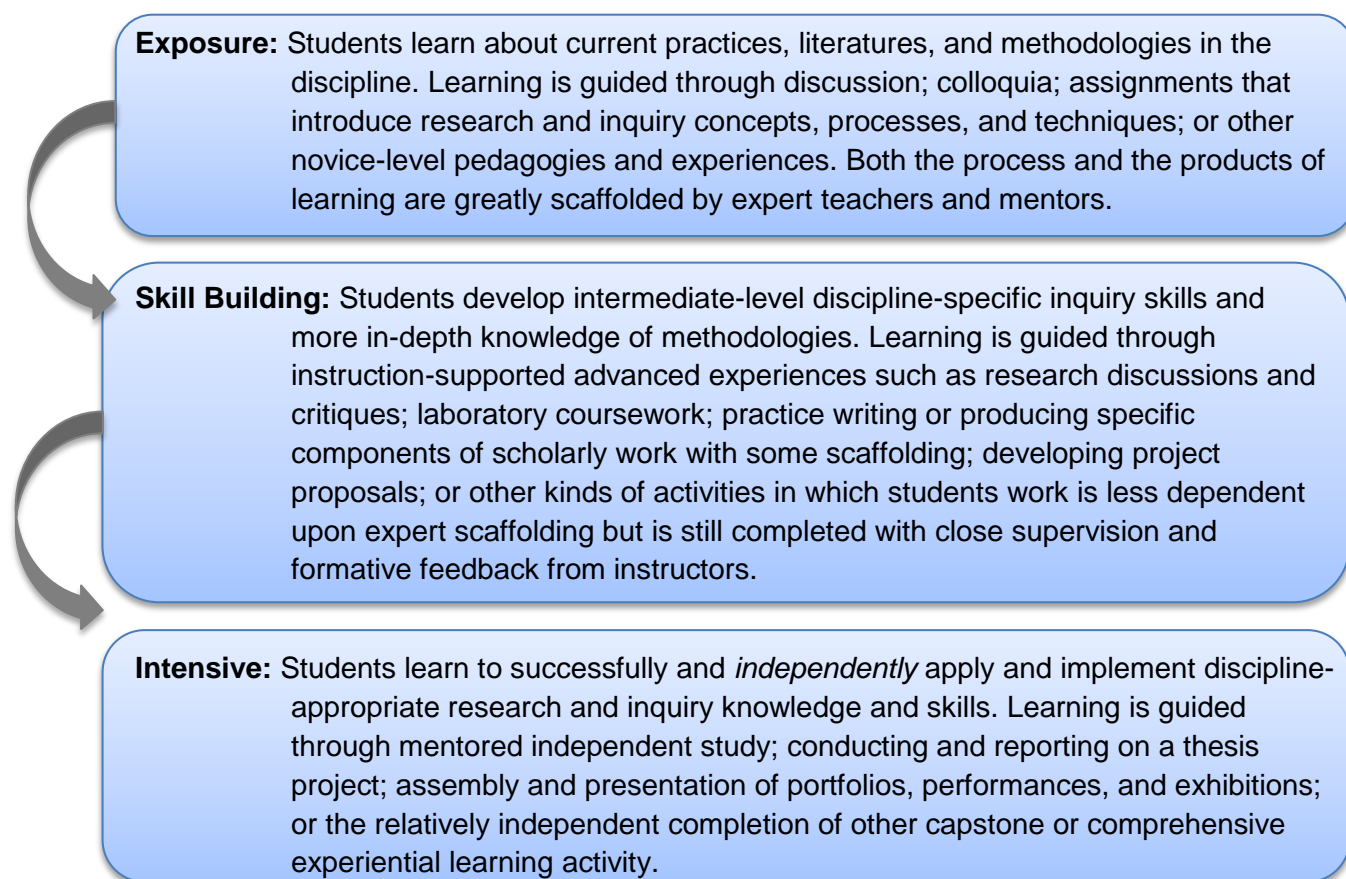Figure 19: Organizational Structure in Support of QEP Assessment
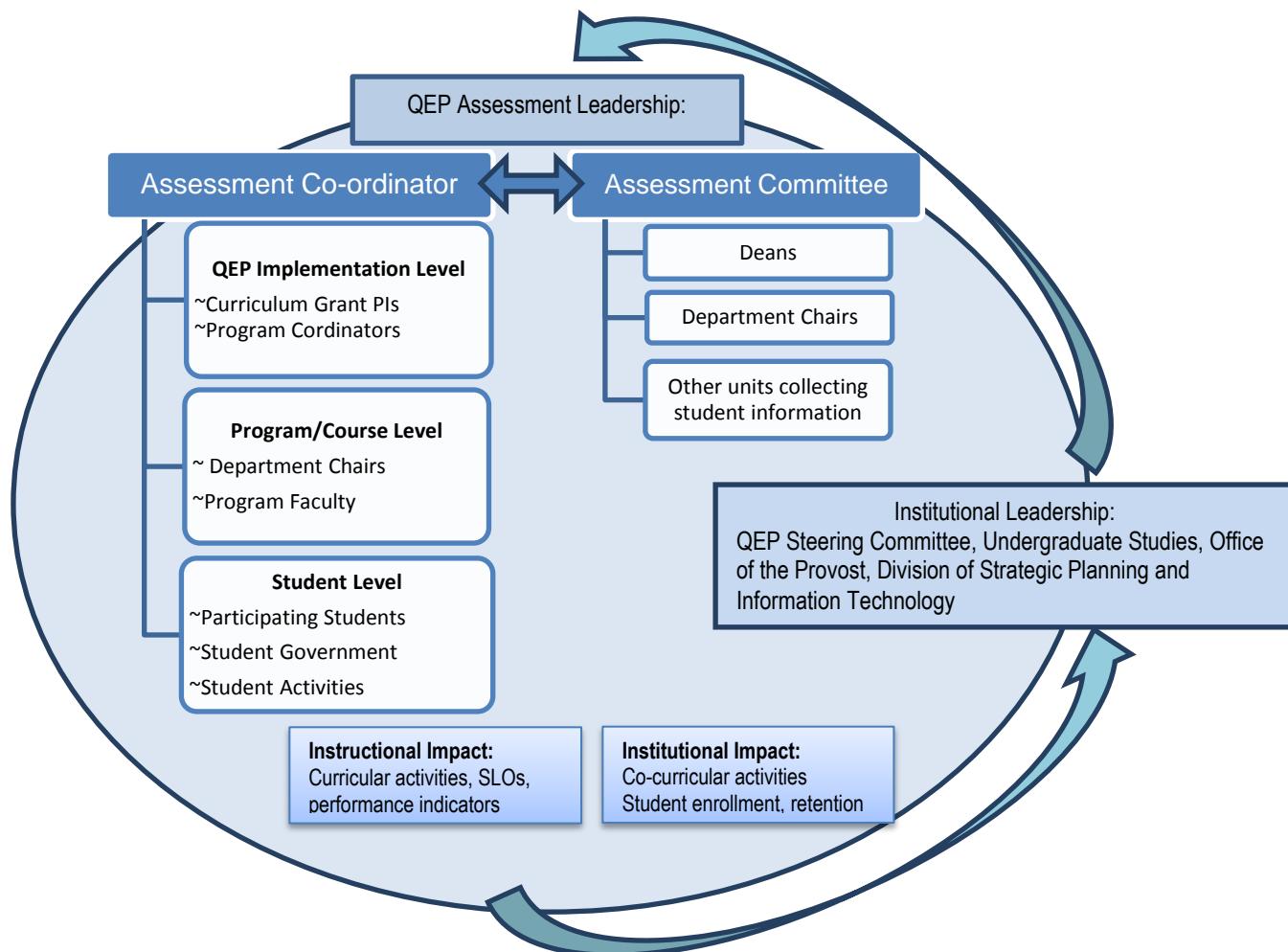
Assessment of Student Learning Outcomes

The QEP Assessment Committee and the Assessment Coordinator developed assessments that identify Student Learning Outcome standards (SLO) and specific performance indicators that participating programs may use to directly measure student achievement within courses, co-curricular components, and programs. They also developed a taxonomy for curricular and co-curricular engagement with research- and inquiry-rich pedagogies and learning. The plan also includes a number of indirect measures such as faculty/student surveys, focus group interviews and trend analyses to guide the focus, refinement and implementation of discipline-specific assessment measures and benchmarks to be used in subsequent QEP plans. The student learning assessment plan has been created to involve continuous introspective analysis and review of student achievement through a series of cohorts engaged in curricular redesign beginning with the establishment of a baseline and extending over a 6 year period. Annual aggregation and analysis of the cohorts' assessment results will inform ongoing program improvement within the QEP as a whole. The details of this plan are provided below.

Structure of the Assessment Plan

The focus of FAU's QEP is to improve student learning by integrating and expanding a culture of undergraduate scholarly research and inquiry (URI) at FAU. Our faculty and students recognize "inquiry" to be a process and/or a product which encompasses intellectual traits that transcend subject matter divisions. Six Student Learning Outcomes (SLOs) detail the expected acquisition and application of research and inquiry knowledge and skills: **Knowledge, Formulate Questions, Plan of Action, Critical Thinking, Ethical Conduct and Communication** (see Appendix L for SLOs and Performance Indicators). These SLOs are assumed to relate to each other in a cyclical manner (see the left side of Figure 22 further below), and they may be addressed at any level engagement within the developmental scaffolding of curricula: Exposure, Skill Building or Inquiry Intensive (shown in Figure 20):
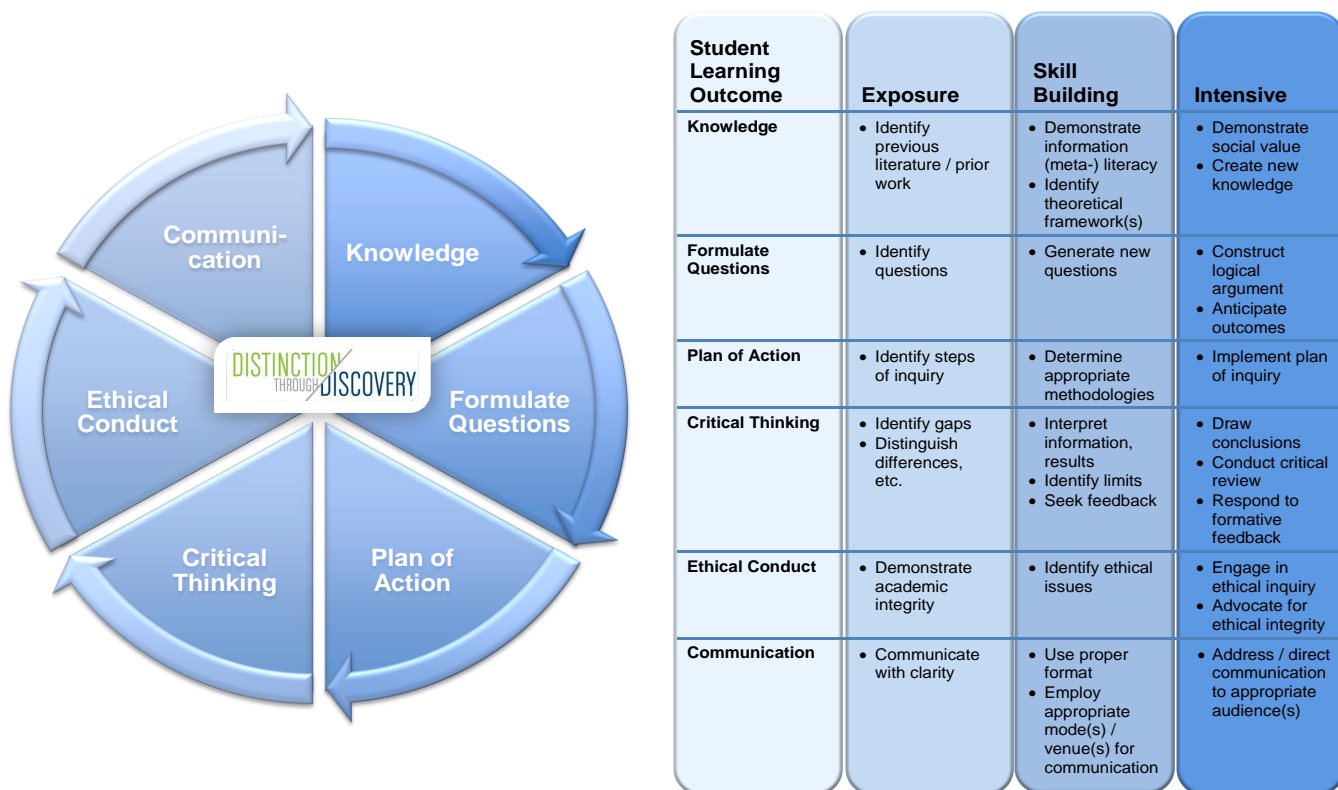
Figure 20: Categories of Research and Inquiry Engagement within Curricular and Co-curricular Components

Exposure: Students learn about current practices, literatures, and methodologies in the discipline. Learning is guided through discussion; colloquia; assignments that introduce research and inquiry concepts, processes, and techniques; or other novice-level pedagogies and experiences. Both the process and the products of learning are greatly scaffolded by expert teachers and mentors.

Skill Building: Students develop intermediate-level discipline-specific inquiry skills and more in-depth knowledge of methodologies. Learning is guided through instruction-supported advanced experiences such as research discussions and critiques; laboratory coursework; practice writing or producing specific components of scholarly work with some scaffolding; developing project proposals; or other kinds of activities in which students work is less dependent upon expert scaffolding but is still completed with close supervision and formative feedback from instructors.

Intensive: Students learn to successfully and *independently* apply and implement discipline-appropriate research and inquiry knowledge and skills. Learning is guided through mentored independent study; conducting and reporting on a thesis project; assembly and presentation of portfolios, performances, and exhibitions; or the relatively independent completion of other capstone or comprehensive experiential learning activity.

Generally, these three levels of engagement with research and inquiry are expected to build upon each other over the entire span of a curriculum or co-curricular program. The Exposure category includes pedagogies and student work that are appropriate for novice-level experiences or lower-level courses wherein students are introduced to the knowledge, skills, and contexts in which research and inquiry occur, or in which foundational knowledge, skills, and materials must be acquired for later learning (e.g., classical forms, range of theories, definitions, common practices). "Skill Building" opportunities build upon general novice-level competencies to target further development of specific domains of knowledge (e.g., certain

theoretical frameworks or genres), skills or techniques (e.g., instrumentation, forms), or applications (e.g., cultural guidelines, display rules, methods of analysis). This level of engagement with research and inquiry is likely in mid- to upper-level courses or in learning experiences that equip students for subsequent, advanced, independent learning and work. Intensive Inquiry represents the highest level of engagement with research and inquiry wherein both research- and inquiry-based learning—as well as the products of research and inquiry, per se—depend upon the prior mastery of requisite skills and knowledge.

Figure 21: Student Learning Outcomes and Their Integration into Developmental Levels of Engagement with Research and Inquiry across the Curriculum

Student Learning Outcome	Exposure	Skill Building	Intensive
Knowledge	• Identify previous literature / prior work	• Demonstrate information (meta-) literacy • Identify theoretical framework(s)	• Demonstrate social value • Create new knowledge
Formulate Questions	• Identify questions	• Generate new questions	• Construct logical argument • Anticipate outcomes
Plan of Action	• Identify steps of inquiry	• Determine appropriate methodologies	• Implement plan of inquiry
Critical Thinking	• Identify gaps • Distinguish differences, etc.	• Interpret information, results • Identify limits • Seek feedback	• Draw conclusions • Conduct critical review • Respond to formative feedback
Ethical Conduct	• Demonstrate academic integrity	• Identify ethical issues	• Engage in ethical inquiry • Advocate for ethical integrity
Communication	• Communicate with clarity	• Use proper format • Employ appropriate mode(s) / venue(s) for communication	• Address / direct communication to appropriate audience(s)

The plan for assessment begins with a small cohort of three "Pilot honors programs" in the first year of the Distinction through Discovery initiative. A Pilot Program Curricular Matrix (See Appendix M) provides the courses, their engagement categories, and the student learning outcomes that the QEP Pilot Group will use. The purpose of the pilot group is to determine the adequacy of the student learning outcome indicators, provide a "test case" for the customization of performance evaluation rubrics to program- and discipline-specific needs, and establish best practices in the collection and reporting of assessment results for future QEP participants. The materials, indicators, benchmarks, and practices established by these pilot programs will inform improvements to the QEP and the QEP assessment plan in subsequent years.

Implementation of Student Learning Outcomes Assessment Within the Curriculum

The QEP provides scholarly opportunities within the curriculum for students to master the QEP learning outcomes. The assessment of each outcome relies on the use of identified performance indicators which differentiate between different levels of engagement with research and inquiry (see the right side of Figure 22). Course assignments aligned with these indicators serve as the assessment measures, and student achievement is evaluated via rubrics that define "developing," "competent," and "exemplary" levels of performance. The QEP Assessment Committee drafted a generic version of the evaluation rubric, and feedback from the QEP Pilot Group faculty was incorporated into customized rubrics that were more appropriate for their programs and disciplines. As the number and variety of participating programs expands over the next 6 years, additional discipline-specific evaluation rubrics will be created and utilized. As shown above in the right side of Figure 22, performance indicators for each student learning outcome have been identified for different levels of engagement with research and inquiry.

Course assignment measures and performance rubrics are linked in an electronic assessment tool to each SLO. Each course included in the participating programs incorporates a minimum of two benchmark measurements. Appendix N provides an example of the SLOs, selected indicators, and assignment rubrics that will be scored in the electronic assessment tool for three unique assignments scheduled for implementation in select pilot courses for the fall 2012 QEP Pilot Group. The "Engagement Level" column identifies the category of research and inquiry engagement assigned to that course: **Exposure (E), Skill Building (S) or Inquiry Intensive (I).** The blue-shaded "assessment rubric" will be scored following student assignment submission. Student feedback, mentoring and coaching will be provided to students directly on the rubric, as appropriate. The rubric scoring yields student performance data for analysis and review by program faculty, students and the QEP Assessment Committee and forms the basis of continuous program improvement efforts.

In addition to serving as a repository and analysis resource for student learning outcome assessment, the electronic assessment tool will enable student demographics and registration information to be matched with participants and provide the ability to aggregate and disaggregate data measures, and report results in real time. Some of the introductory surveys of faculty, students and other stakeholders will be launched using the assessment tool. As the pilot data is used to modify SLO measures, the pilot faculty participants will model best practices for new QEP participants each semester, led by the QEP Assessment Committee. Training will include using the electronic system, developing and editing performance based rubrics, and analyzing data to guide program improvement.

<u>Assessment of QEP Student Learning Outcomes is Aligned With Other Curricular Assessment Efforts a FAU</u>

The Assessment System at Florida Atlantic University, in compliance with Florida Board of Governors Regulation 8.016, includes the use of Student Learning Outcome Assessments (SLOA) measures across all academic programs in all colleges (these used to be called Academic Learning Compacts, ALC). The assessment processes define and demonstrate student achievement in three core areas: discipline-specific content knowledge, critical thinking, and communication. FAU has been assessing Academic Learning Compact skills for each of its baccalaureate degree programs since 2005. Every undergraduate student at FAU is expected to acquire and demonstrate skills in these areas upon successful completion of their chosen

course of study. In addition, in accordance with Florida Board of Governors Regulation 6.017, FAU defines and assesses general education core competencies through its the Intellectual Foundations Program (IFP) which was implemented in fall 2009.

The QEP Assessment Committee acknowledges the overlap of integrated assessments at the undergraduate level, and the value of these existing assessments as a context for the overall QEP Assessment Plan. The alignment among the core competencies defined by Florida's Board of Governors (BOG), FAU's Intellectual Foundations Program (IFP) outcomes, and the QEP learning outcomes is depicted in Appendix O. This matrix serves to provide a visual representation of the institutional assessment context in which QEP Learning Outcomes are embedded. All of these layers of learning outcomes, where applicable, will be tracked in the electronic assessment tool utilized by the QEP throughout its duration.

Implementation of Co-Curricular Assessment
The opportunity for co-curricular involvement—and the impact of such involvement on student achievement of learning outcomes—will be evaluated by the QEP Assessment Plan at FAU. The baseline for this assessment was established by rates of participation in FAU's Undergraduate Research Grants Program, the Undergraduate Research Journal, the Undergraduate Research Symposium (see Chapter 4, self- evaluation), and other current opportunities for students to engage in research and inquiry in 2012-2013. Participation in these co-curricular opportunities is currently being tracked for trend analysis; perceived changes in the undergraduate research culture will also be evaluated on an ongoing basis. These analyses will offer the QEP team insight into the undergraduate research venues as a model for future research-enhanced undergraduate programs.

As evidenced in the QEP Pilot Program Curricular Matrix, programs plan to involve students in research activities responding to program goals and outcomes (see Chapter 5, Actions to Be Implemented) and will be assessed as both a trend analysis and, in response to initial assessments, to quantitative changes in participating colleges, programs within colleges, and numbers of student (and/or faculty) participants. Qualitative climate and culture data, including the marketing initiatives identified in Chapter 5, will be assessed using survey instruments and focus group interviews. The assessment of these and other co-curricular activities includes electronic tracking of participation, focus group interviews and other survey instrument analysis and review. The electronic assessment tool will serve to assist the QEP Assessment Committee with collecting and storing data, each semester, for analysis and reporting.

<u>**Assessment of Program Goals and Outcomes**</u>

In response to the four program goals, the QEP Assessment Committee will collaborate with faculty to develop appropriate measures to assess program outcomes:

1. More students and faculty will be involved in undergraduate scholarly research and inquiry.
2. Curricular changes will be implemented to integrate the teaching and research missions of our university
3. Participating undergraduates will become independent, self-motivated critical thinkers who are prepared for their future goals
4. Faculty and students will be recognized and rewarded for their participation in undergraduate research and inquiry
5. An Office of Undergraduate Research and Inquiry and associated website will be

> established and sustained as a supporting structure for FAU's undergraduate research and inquiry efforts
> 6. A method for assessing participation in undergraduate research and inquiry for both formative and summative purposes will be established and implemented
> 7. FAU will be recognized for student and faculty undergraduate research and inquiry opportunities

Outcomes related to each program goal, and the plan to assess these outcomes, are included in Appendix P Timeline for Assessment of Program Outcomes. Assessments relevant for review during the Pilot are highlighted in blue text. The monitoring of planned initiatives described below as measures, data or benchmarks, is the responsibility of the QEP Assessment Committee's semester progress checks. This team approach to implementation of the plan intends to offer support and resources where needed, in an effort to ensure the integrity of the timeline for assessment of program goals.

The QEP Assessment Committee meets monthly, and has been intricately involved in the design of student performance measures, including individual assignment rubrics, to be used for the fall 2012 QEP pilot. The committee is in the process of editing existing FAU university-wide surveys to include QEP-relevant items, or expand upon existing survey questions. The surveys launched at FAU rely on the expertise of the Office for Institutional Effectiveness and Analysis, and use the SNAP format as the platform for delivery. The QEP Assessment Coordinator has been trained to serve as the implementation director for the SNAP survey design and launch of QEP surveys, and to download, aggregate and disaggregate survey data. Following review and analysis of assessment data each semester, the Assessment Committee will prepare an annual report for stakeholder review at the end of each year of the QEP program. Analysis will include, but is not limited to: student performance summaries, survey and focus group summaries, trend analysis and participation summaries, climate and culture perception reviews. The QEP Assessment Committee will also engage in a self-analysis and program review to guide each revision of the QEP plan. The Assessment Plan is purposeful, yet flexible; the plan, and the Assessment Committee involved in the implementation of the plan, acknowledges that "Distinction through Discovery" includes their charge. As the assessment needs of both faculty and students are identified, the Assessment Committee is poised to assist.

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Appendix A: QEP Topic Selection Process

In fall 2010, Edward Pratt, Ph.D., Dean of Undergraduate Studies and Jeffrey Buller, Ph.D. Dean of the Wilkes Honors College co-chaired the initiative to select the topic of the Quality Enhancement Plan (QEP). They actively engaged the university community in the QEP process and solicited proposals and feedback on potential QEP topics. Discussions about this opportunity and sharing of ideas were encouraged through a QEP website that was developed (www.fau.edu/qep), as well as presentations made at each college's faculty assembly meetings and open forums held for faculty, staff and students. A QEP Topic Selections Committee was established to identify three to four potential topics for the University's QEP to the SACS Leadership team at FAU (See Appendix C). This broadly represented committee included Dr. Pratt and Dr. Buller as the co-chairs, faculty and staff representatives from each college, other university administrators and representatives from the University Library, the Center for Learning and Student Success and an undergraduate student representative.

In January 2011, the QEP Topic Selections Committee solicited two-page pre-proposals from the FAU community on potential QEP topics that could improve undergraduate student learning. The QEP website was used for informational purposes, soliciting feedback from the university community, and to provide results of surveys and other assessment information gathered from students, faculty, alumni and employers. The information provided by the QEP Topic Selection Committee assisted faculty in identifying topics focused on student learning that were based on well demonstrated institutional needs derived from data. The University responded positively to the request for ideas and proposals and from this solicitation. Fifteen pre-proposals were submitted by dozens of faculty, staff and one student, representing every college and multiple units across the university (See Appendix D).

The QEP Selections Committee met to discuss the pre-proposals, and using the SACS guidelines as a framework, evaluated the pre-proposals to eventually select three topics for further development. Several of the proposals were combined to narrow down the three topics chosen which were: 1. Integrating an Honors Undergraduate Research Focus at FAU; 2. Enhancing Students' Writing Abilities; and 3. Experiential Learning. The authors of those combined proposals were asked to work together to develop full proposals (six pages including a proposed budget) on the topics selected. In addition to submitting expanded full proposals, representatives from each of the focused topics were also asked to present their proposals at two open forums held for the FAU community (faculty, staff and students) in April 2011. Well over 100 faculty, staff and students attended the open forums to listen to the QEP presentations. The university community was given an opportunity to review the presentations (at the open forum or broadcast through the website) and submit feedback (evaluation forms at the open forum and online through website) on the three QEP topics (See Appendix D). In May 2011, the QEP selections committee presented the three proposals, a summary of the discussions at the April 2011 open forum, and the evaluations of the proposals from the university community to the FAU SACS Leadership team. In June 2011, the SACS Leadership team selected the winning QEP proposal which was on the topic of Undergraduate Research and Honors (See Appendix D).

Appendix B: QEP Planning Process

Once FAU's QEP topic was selected, Dr. Donna Chamely-Wiik, lead writer for the Undergraduate Research and Honors proposal, was appointed Director of the QEP. She was charged with leading the initiative to develop, implement, and assess FAU's Quality Enhancement Plan, and ensuring the plan was integrated into ongoing efforts of our institution and including participation by all institutional constituencies in the development of the plan.

Honors Education Task Force

On May 31, 2011, FAU's President, Dr. M.J. Saunders, charged the Honors Education Taskforce with developing a proposal for increasing the number of high ability students who choose to attend FAU because of its honors opportunities. (See Appendix E). The Taskforce identified a series of recommendation, which were summarized in a final report and distributed to the University community in August 2011. Many of these recommendations are currently being implemented, which include: 1) a unified theme called "Distinction through Discovery" (later adopted by the QEP); 2) the development of additional honors programs (an additional five to date) which emphasize student engagement in research and inquiry; 3) collaboration with University Admissions to establish new Honors recruitment materials; 4) expanded membership of the University Honors council to include the QEP Director and College representatives; and 5) a unified web-presence for all honors opportunities.

In the full report, the task force committee identified the relationship between these two institutional initiatives. We provide an excerpt and a diagrammatic representation from the report.

Excerpt from the Honors Education Task Force report

Honors Education and the QEP

The topic selected for FAU's QEP is "Integrating and Expanding a 'Culture of Research and Scholarship' at FAU through the Framework of an Honors Program." The focus of this plan provides an excellent complement to the goals established by the Taskforce. It is thus possible for the University to use the recommendations of the Taskforce to underscore for SACS the institution-wide importance FAU places on honors education. In other words, the University can leverage its efforts in expanding its honors opportunities by carefully aligning the implementation of the QEP with the recommendations outlined in this report. Nevertheless, the QEP and the goals of this proposal, while overlapping, are not identical.
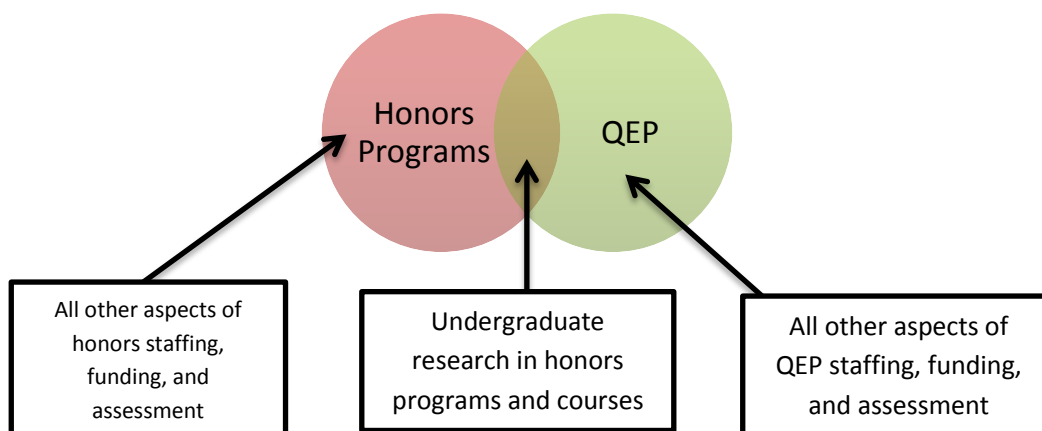
Representation of the relationship between Honors Education and the QEP

 Our QEP planning began with this Taskforce and integrating a culture of undergraduate research into the institution's plans to expand honors education and continued through the establishment of a QEP steering committee.

QEP Steering Committee

During September and October 2011, the QEP director met with key constituents (See Appendix G and H) to introduce the QEP topic and to solicit assistance with identifying key personnel who would be willing to serve on the QEP steering committee. In October, 2011, the QEP Steering Committee was established, which included some members from the topic selection committee, honors education task force, and new representatives from every college, representatives from our different partner campuses, and other key participants from programs well-suited to integrate with our QEP efforts. This committee was charged with the responsibility of fully developing the plans for QEP.

The QEP Steering Committee first met at the beginning of November 2011 to become more familiar with SACS, the QEP process and topic, and Honor Education Task force report. Subsequent committee meetings focused on refining the working definition of research to include "inquiry", reflecting creative activities and scholarship as well. The Steering Committee established and finalized QEP goals, objectives and student learning outcomes. The committee continued reviewing best practices, gathering data and establishing ideas of how these practices could be expanded into the undergraduate experience. During this time, two surveys were designed and distributed to solicit information about existing programs and best practices, recommendations for expanding this culture, and perceived barriers. Four separate themes for an action plan emerged from the efforts of the Steering Committee, namely: 1. Curricular activities, 2. Co-curricular activities, 3. Honors programs and 4. Student-culture.

QEP Student Council

In October 2011, Dr. Chamely-Wiik collaborated with FAU's Student Government and issued a call for student applications for representatives to serve on a new QEP Student Council. Those selected to serve, participated in a student focus group conducted by the QEP Director to share their experiences and involvement in undergraduate research and inquiry. They also provided a

"student-eye view" of the necessary resources and institutional needs to support and sustain this culture at FAU. Key members of the QEP Student Council were asked to serve as members of the larger QEP Steering Committee. To date, additional efforts of the QEP Student Council have led to the formation of the Council for Scholarship and Inquiry (CSI), and the establishment of the Undergraduate Research Journal in January 2012.

Faculty Learning Community Participation

Additional opportunities for faculty to engage with FAU's QEP development were provided through two QEP-focused Faculty Learning Communities (FLCs), during Fall 2011–Spring 2012. They included "Research, Creative and Scholarly Activities into the Undergraduate Curriculum" led by Dr. Chamely-Wiik (QEP Director) and Dr. Daniel Meeroff (College of Engineering), and "Teaching High-Ability Students" led by Dr. Chris Strain (Wilkes Honors College). The contribution these FLCs provided to the QEP team included a working definition of research which could be applied to all disciplines, a comprehensive review of relevant literatures, discipline-specific case study examples of research and inquiry-rich pedagogies and practices, and assessment strategies that follow best practices.

QEP Sub-Committees

In January of 2012, the QEP Steering Committee members were divided into four sub-committees, based on the themes which emerged, and charged with establishing and prioritizing a university-wide plan to expand a culture of undergraduate research and inquiry under their assigned theme. Each sub-committee was chaired by a member of the original QEP Steering Committee; additional faculty, staff, and student members were recruited from the university community. Each sub-committee met one to two times a week for over two months.

The sub-committees began by analyzing results from the two QEP surveys and meeting with key representatives in relevant units within FAU. Sub-committee members reviewed the literature and communicated with faculty and administrators at other institutions with existing expertise in undergraduate research and inquiry (See Appendices I and J). Each sub-committee produced a proposed set of specific action items for the QEP including programs, grants, fellowships, reward and recognition, and professional development opportunities for participants in undergraduate research and inquiry. In addition, they established an implementation plan for each action item with guidelines for program development, appropriate budgets, a timeframe for implementation, suggestions for assessment of these action items, and the needed infrastructure to carry out the expansion. Completed written reports were submitted it to the director on March 9th, 2012.

During March and April 2012, the QEP Executive Committee (See Appendix F) met weekly to merge ideas and priorities of the sub-committees into a coherent executive summary (working plan) and to establish a budget and timeline for implementation of the plan. This was reviewed, approved and finalized by the re-convened QEP Steering Committee and presented to the FAU SACS Leadership Team on April 6th, 2012. Feedback was provided and the plan was refined. The QEP Executive Committee was then charged with finalizing a 6-year budget and estimated cost for sustainability of the QEP with the University's Financial Affairs staff.

Ongoing Consultation

The QEP steering committee recruited an external consultant, Dr. Thomas Pusateri, Associate Director, Center for Excellence in Teaching at Learning at Kennesaw State University to assist with establishing the plan of action and assessment for our Distinction through QEP initiative. In April 2012, Dr. Pusateri visited FAU for two days, and met with key personnel including active undergraduate student researchers, a college dean, steering committee and executive committee members, the vice president for strategic planning, the associate provost for assessment and instruction, and university provost. Prior to his visit, Dr. Pusateri was provided with all completed sub-committee recommendation reports; student learning outcomes document; executive summary (working plan); draft of QEP budget and timeline; slides from FAU's SACS Leadership Team meeting presentation and latest draft of FAU's 2012-17 Strategic Plan. Upon completion of the visit, Dr. Pusateri summarized his findings in a formal report in which he provided recommendations for the student learning outcomes, gave suggestions on an assessment plan, and provided feedback on FAU's efforts to adhere to SACS guidelines for a Quality Enhancement Plan. These included the scope of FAU's QEP, the university's infrastructure supporting QEP implementation, and continuation of FAU's QEP and its sustainability.

The executive summary (working plan) was shared with several university constituencies including Council of Deans, Faculty Senate, Undergraduate University Programs Committee Colleges, Departments, Programs, Student Government, Division of Research and Admissions to obtain feedback on the proposed plan of action and budget. During Summer 2012, the QEP plan of action, budget and timeline was further refined and developed based on all received feedback, and additional detail was included as the first draft of the QEP document was being written. A request was sent out to department chairs to gather more data on existing curricular and co-curricular activities associated with undergraduate research and inquiry to serve as baseline for the QEP.

QEP Assessment Committee

An assessment committee was established for developing and implementing an assessment plan for the QEP by which the achievement of student learning outcomes and other program goals could be evaluated. The QEP Assessment committee solicited applications for an assessment consultant to assist their efforts. Dr. Patricia Kirsch (College of Education) was welcomed during July 2012 as the Assessment Coordinator to the QEP, and a QEP assessment plan was established.

Appendix C: QEP Topic Selection Committee and SACS Leadership Team:

QEP Topic Selection Committee		
Member	**Title**	**Academic Unit**
Jeffrey Buller (Co-Chair)	Dean and Professor	Harriet L. Wilkes Honors College
Ed Pratt (Co-Chair)	Dean and Professor, Undergraduate Studies Dean's Office	Undergraduate Studies
Edgar An	Professor & Director, Ocean & Mechanical Engineering	College of Engineering and Computer Science
Marina Banchetti	Associate Professor, Philosophy	Dorothy F. Schmidt College of Arts and Letters
Marc Rhorer	Assistant Dean, Business	College of Business
Sharon Dormire	Assistant Dean & Associate Professor, Nursing Dean's Office	Christine E. Lynn College of Nursing
Evelyn Frazier	Instructor, Biological Sciences	Charles E. Schmidt College of Science
Eliah Watlington	Associate Provost & Associate Dean, Jupiter Vice President Office	College of Education
Patricia Heydet-Kirsch	Assistant Professor, Education Dean's Office	College of Education
Patricia Patterson	Adjunct Faculty, Education Leadership	Directed Independent Study
Chris Ely	Associate Professor, History; Honor's College Social Science	Harriet L. Wilkes Honors College
Madelyn Lavigne	Assistant University Librarian	S. E. Wimberly Library
Jennifer Bebergal	Director, Student Retention	Center for Learning and Student Success
Joshua Scholl	Student Representative	Charles E. Schmidt College of Science

SACS Leadership Team	
Member	**Academic Unit**
Mary Jane Saunders	President
Charles Brown	Senior Vice President Student Affairs
Jeffery Buller	Dean of Harriet L. Wilkes Honors College; Co-chair QEP
Brenda Claiborne	University Provost and Chief Academic Officer
Dennis Crudele	Chief Financial Officer, Senior Vice President of Finance & Administration
Gitanjali Kaul	Vice President for Strategic Planning and Information Technology SACS Liaison
William McDaniel	Chair Faculty Senate
Edward Pratt	Dean, Undergraduate Studies; Co-chair QEP

Appendix D: List of Pre-Proposal Topics Submitted

Name of Submitter	Title	College	Name of Pre-Proposal
Ray Amirault	Faculty	College of Education	Technology to Enhance Student Learning
Clifford Brown	Faculty	Dorothy F. Schmidt College of Arts and Letters	QEP: Mathematics Across the Curriculum
Leslie Calhoun	Faculty	College of Education	Integrate Field Experience Activities
Donna Chamely-Wiik	Faculty	Charles E. Schmidt College of Science	Integrating an Honors Undergraduate Research Focus at FAU
Lorraine Cross	Faculty	College of Education	Engaging Students through Academic Service-Learning
Sharon Dormire	Faculty	Christine E. Lynn College of Nursing	Enhancement of Academic Writing
Lawrence Feidelman	Faculty	College of Business	Enhancing Our Student's Global Knowledge Base
Jeffrey Galin	Faculty	Dorothy F. Schmidt College of Arts and Letters	Writing Across the Curriculum
Simon Glynn	Faculty	Dorothy F. Schmidt College of Arts and Letters	Analytic Thinking: Teaching Method and Faculty Training Proposal
Chaouki Ghenai	Faculty	College of Engineering and Computer Science	Classroom Assessment for Student Learning – Formative Assessment
Jason Immerblum	Student	College of Engineering and Computer Science	Physical, Technological, Social and Instructional Change at FAU
Catherine Meschievitz	Faculty	Division of Undergraduate Studies, Office of International Programs	Graduate globally competent students by expanding student learning opportunities in study abroad and international and global studies
Becky Mulvaney	Faculty	Dorothy F. Schmidt College of Arts and Letters	Enhancement of Oral communication Skills
Patricia Patterson	Faculty	College for Design and Social Inquiry	Evaluating information for decision making and "Making the Case" for education
Jennifer Peluso	Faculty	Charles E. Schmidt College of Science	Learning Never Ceases program

Appendix E: Honors Education Task Force Participants

Name	Title	College
Jeff Buller	Dean	Harriet L. Wilkes Honors College
Ed Pratt	Dean	Undergraduate Studies
Somnath Bhattacharya	Associate Dean and Professor	College of Business
James Capp	Communications and Events Coordinator	Office of the Provost
Donna Chamely-Wiik	Assistant Scientist/Scholar	College of Science
Sharon Dormire	Assistant Dean and Associate Professor	College of Nursing
Charles Dukes	Associate Professor	College of Education
Ana Fiallos	Education Outreach Coordinator	Max Planck Florida
Sameer Hinduja	Associate Professor	College for Design and Social Inquiry
David Kian	Senior Vice President	Strategic Relations and General Counsel
Paul Kirchman	Chair and Associate Professor	Harriet L. Wilkes Honors College
Patricia Kollander	Chair and Professor, Department of History	College of Arts and Letters
Mihaela Metianu	Director	International Students
Monica Orozco	Assistant Provost	eLearning, Academic Affairs
Marc Rhorer	Assistant Dean for Academic Affairs	College of Business
Dorothy Russell	Associate Vice President	Financial Affairs
Timothy Van Epps	Director/Instructor, Innovation Leadership Honors Program	College of Engineering and Computer Science
Joshua Voss	Assistant Research Professor	Harbor Branch Oceanographic Institute

Appendix F: QEP Steering and Sub- Committees: August 2011 - Present

Member	Title	Academic Unit
QEP Steering Committee		
Barrios, Barclay	Assistant Professor, English	College of Arts and Letters
Bebergal, Jennifer	Director, Student Retention	CLASS
Branaman, Ann	Associate Professor, Sociology	College of Arts and Letters
Buller, Jeffrey	Dean and Professor	Harriet L. Wilkes Honors College
Castrogiovanni, Gary	Professor, Management-International Business Entrepreneurship	College of Business
Chamely-Wiik, Donna	QEP Director, Assistant Scientist, Chemistry	College of Science
Coicou, Patricio	Student Representative	College of Science
Crawford, Melissa	Associate Director	CLASS
Davis, Megan	HBOI Director & Research Professor,	Harbor Branch Oceanographic Institute
DiCosola, Angela	Professor, Visual Art & Art History	College of Arts and Letters
Dormire, Sharon	Assistant Dean & Associate Professor,	College of Nursing
Dunn, Kim	Associate Professor & Director of SOA, Accounting	College of Business
Fowlkes, James	Director, Instructional Design, Academic Affairs	Instructional Services
Galin, Jeffrey	Associate Professor, English Director, UCEW and WAC	College of Arts and Letters
Haky, Jerome	Associate Professor, Chemistry	College of Science
Hughes, Colin	Associate Professor, Biology	College of Science
Lavigne, Madelyn	Assistant University Librarian	S. E. Wimberly Library
Liehr, Patricia	Professor, Associate Dean, Nursing	College of Nursing
Long, Vincent	Student Representative	College of Science
Meeroff, Daniel	Associate Professor, Civil Environment & Geomatic Engineering	College of Engineering and Computer Science
Oner, Ceylan (Asli)	Assistant Professor, Urban & Regional Planning	College of Design and Social Inquiry
Peluso, Jennifer	Director, SoTO, Instructor, Psychology	Center for Teaching and Learning College of Science
Ploger, Donald	Associate Professor, Teaching and Learning	College of Education
Pratt, Edward	Dean and Professor, Undergraduate Studies Dean's Office	Undergraduate Studies
Raviv, Daniel	Professor, Computer & Electrical Engineering & Computer Science	College of Engineering and Computer Science
Risucci, Genna	Graduate Student Representative	College of Education
Scholl, Josh	Student Representative	College of Science
Vos, Jaap	Director & Associate Professor, Urban & Regional Planning	College for Design and Social Inquiry

QEP Subcommittees: January 2012 – May 2012

Curriculum Subcommittee		
Member	**Title**	**Academic Unit**
Jennifer Peluso (Co-chair)	Instructor, Psychology	College of Science
Edward Pratt	Dean Undergraduate Studies	Undergraduate Studies
Barclay Barrios	Assistant Professor, English	College of Arts and Letters
Ceylan (Asli) Oner	Assistant Professor, Urban & Regional Planning	College of Design and Social Inquiry
Jerome Haky	Associate Professor, Chemistry	College of Science
Jennifer Bebergal	Director, Student Retention	CLASS
Sharon Dormire	Assistant Dean Nursing	College of Nursing
Colin Hughes	Associate Professor, Biology	College of Science
Madelyn Lavigne	Assistant University Librarian	S. E. Wimberly Library
James Fowlkes (Co-chair)	Director, Instructional Design,	Center for eLearning
Viet-Hang (Jeanette) Truong	Student Representative	College of Arts and Letters

Co-Curricular Subcommittee		
Member	**Title**	**Academic Unit**
Donna Chamely-Wiik (Co-Chair)	QEP Director, Assistant Scientist, Chemistry	College of Science
Megan Davis (Co-chair)	HBOI Director & Research Professor,	Harbor Branch Oceanographic Institute
Daniel Meeroff	Associate Professor, Civil Environment & Geomatic Engineering	College of Engineering and Computer Science
Angela DiCosola	Professor, Visual Art & Art History	College of Arts and Letters
Jaap Vos	Associate Professor, Urban & Regional Planning	College for Design and Social Inquiry
Gary Castrogiovanni	Professor, Management- International Business Entrepreneurship	College of Business
Melissa Crawford	Associate Director CLASS,	CLASS
Jeffrey Galin	Associate Professor, English, Director University Center for Excellence in Writing	College of Arts and Letters
Madelyn Lavigne	Assistant University Librarian	S. E. Wimberly Library
Patricio Coicou	Student Representative	College of Science
Vincent Long	Student Representative	College of Science

Upper Division Honors Committee		
Member	**Title**	**Academic Unit**
Jeffrey Buller (Chair)	Dean and Professor	Honors College
Kim Dunn	Chair, Accounting	College of Business
Daniel Raviv	Professor, Computer & Electrical Engineering	College of Engineering and Computer Science
Patricia Liehr	Professor, Associate Dean	College of Nursing
Ann Branaman	Associate Professor, Sociology	College of Arts and Letters
Don Ploger	Associate Professor, Teaching and Learning	College of Education

Jerome Haky	Associate Professor, Chemistry	College of Science
Aruna Khan	Student Representative	College of Science

Student Subcommittee	
Aarons, David	College of Arts and Letters
Chen, Adam	College of Science
Coicou, Patricio	College of Science
Geubelle, Francis	College of Science
Horace, Reginald	College of Science
Khan, Aruna	College of Science
Miller, Michael	College of Business
Lambrinos, Nikolle	College of Science
Long, Vincent	College of Science
Maceda, Cynthia	College of Education
Risucci, Genna	College of Education
Rodriguez, Alena	College of Science
Scholl, Joshua (Chair)	College of Science
Truong, Viet-Hang	College of Arts and Letters
Wengert, Nicole	University Honors Program
Wengert, Tara	University Honors Program

QEP Assessment Committee	
Jennifer Peluso	College of Science
James Fowlkes	Instructional Services
Jeffrey Galin	College of Arts and Letters
Jerome Haky	College of Science
Jennifer Bebergal	Center for Learning and Student Success
Sharon Dormire	College of Nursing
Daniel Meeroff	College of Engineering and Computer Science
Patricia Heydet-Kirsch	College of Education
Madelyn Lavigne	S. E. Wimberly Library

QEP Executive Committee	
Jennifer Peluso	Charles E. Schmidt College of Science
James Fowlkes	Instructional Services
Edward Pratt	Dean, Undergraduate Studies; Co-chair QEP
Jerome Haky	Charles E. Schmidt College of Science
Jeffrey Buller	Dean, Wilkes Honors College; Co-chair QEP
Donna Chamely-Wiik	Director, QEP; Charles E. Schmidt College of Science
Megan Davis	Faculty, Harbor Branch Oceanographic Institute
Joshua Scholl	Student, CSI President
Vincent Long	Student representative

Appendix G: QEP University Outreach and Information Gathering - Internal

Date	Meeting/Event
Fall 2010	Quality Enhancement Plan (QEP) website established
Fall 2011	QEP website content updated
August 16, 2011	Council of Deans meeting
August 26, 2011	Meeting with Dean, College of Education
August 29, 2011	Meeting with Dean, College of Business
August 31, 2011	Phone conversation, Director, Harbor Branch Oceanographic Institute
September 7, 2011	Meeting with Dean, College of Science
September 8, 2011	Meeting with Dean, College of Arts and Letters
September 9, 2011	Meeting with Director, Office of International Programs
September 12, 2011	Meeting with Dean, College of Computer Science and Engineering
September 14, 2011	College of Design and Social Inquiry Executive Committee meeting
September 15, 2011	Meeting with Dean, College of Nursing
September 15, 2011	Meeting with Director, Student Government
September 15, 2011	College of Education Executive Committee meeting
September 16, 2011	College of Engineering and Computer Science Undergraduate/Honors committee meeting
September 19, 2011	Email update to SACS Leadership team
September 23, 2011	Undergraduate Honors student advisor meeting
September 26, 2011	College of Engineering and Computer Science Executive Committee meeting
September 27, 2011	College of Arts and Letters Executive Committee meeting
October 3, 2011	Dean and Associate Dean, College of Business meeting
October 4, 2011	Department of Math, Faculty meeting
October 5, 2011	Meeting, Assistant Provost, e-Learning
October 17, 2011	College of Nursing Executive Committee meeting
November 1, 2011	Update to Provost and Chief Academic Officer
November 4, 2011	Meeting, Chair of Accounting – Accounting Scholars program
November 17, 2011	Meeting, Chair of Biology – Biology Honors program
November 21, 2011	Meeting, Dean Honors College – Honors college programs
December 2, 2011	Harriet L. Wilkes Honors College Faculty Assembly Meeting
December 7, 2011	College of Science, Faculty Assembly Meeting
December 9, 2011	University Libraries meeting
December 19, 2011	Meeting, Vice Provost of Assessment and Instruction
January 17, 2012	FAU New Faculty Orientation Presentation
January 17, 2012	Council of Deans Presentation
January 18, 2012	Survey to Chairs and Faculty distributed
January 19, 2012	Meeting, Assistant Provost, e-Learning
January 20, 2012	Presentation to the University Faculty Senate
February 16, 2012	Division of Research - Research Council Meeting presentation
February 22, 2012	Office of International Programs Meeting
February 24, 2012	FAU Student Financial Aid meeting
March 02, 2012	Career Development Center meeting
March 12, 2012	Weppner Center for Civic Engagement and Service meeting

March 15, 2012	Meeting, Marketing and Creative Services
March 29, 2012	Meeting, Director, Strategies for Learning Success
April 3, 2012	Presentation, SACS Leadership Team
Spring 2012	QEP website content updated and new links, graphics and logo added
April 6, 2012	Undergraduate Research Symposium presentation
April 10, 2012	CLASS – Freshman Year and Beyond students presentation
April 20, 2012	University Undergraduate Programs Committee (UUPC) presentation
May 1, 2012	Meeting, Marketing and Creative services
May 08, 2012	CLASS – Living Learning Community (LLC) Faculty Retreat presentation
May 15, 2012	Meeting, Student Affairs, Graduate Student Association and Student Media
May 17, 2012	Meeting, Director of Student Government
May 24, 2012	FAU Announcement: call for reviewers needed for inaugural issue of the FAU Undergraduate Research Journal (FAURJ)
May 25, 2012	Request for feedback on Self-study survey to Deans, Chairs and Faculty
May 30, 2012	Meeting Marketing and Creative Services and Office of Information Technology
June 4, 2012	QEP Steering Committee
June 12, 2012	College of Arts and Letters Executive Committee meeting
June 14, 2012	FAU Announcement: call for interest stories on Undergraduate Research, Inquiry and Creative Activities
June 14, 2012	FAU Admissions Staff presentation
June 14, 2012	Meeting, Director Student Government
June 14, 2012	Meeting, Accounting Honors Pilot faculty
June 20, 2012	College of Science Executive Committee meeting presentation
June 22, 2012	Meeting, Director of Admissions and Staff- Honors marketing
June 22, 2012	QEP Steering Committee
June 26, 2012	Meeting, Vice Provost for Assessment and Instruction
June 27, 2012	FAU Self-study survey for baseline distributed through Deans and Chairs
June 27, 2012	Meeting, Arts and Letters faculty and Dean, Pilot program selection
June 28, 2012	Meeting, Marketing and Creative Services
July 2, 2012	Meeting, Chair of Management and International Programs
July 5, 2012	Meeting, Biology Faculty – Howard Hughes Training program
July 5, 2012	Meeting, University Libraries
July 6, 2012	Meeting, Director Student Government
July 9, 2012	Graduate College Representative meeting
July 9, 2012	Meeting SoTO Director, Faculty Learning Communities
July 11, 2012	Meeting with Freshman Learning Community (FLC) and Living Learning Community (LLC) Faculty re: Freshmen Research and Inquiry exposure.
July 11, 2012	Meeting Office of Instructional Technology, Video – QEP
July 13, 2012	Division of Research and Graduate College meeting presentation
July 17, 2012	Council of Deans meeting presentation

July 19, 2012	Meeting, Chair , Finance
July 19, 2012	Meeting, Marketing and Creative Services
July 19, 2012	Meeting, Assessment committee
July 20, 2012	Meeting, Honors Pilot Programs
July 20, 2012	Meeting, Weppner Center, Career Development Center, Office of International Programs, Adams Center for Entrepreneurship, Faculty representatives- Design and Social Inquiry and Science
July 23, 2012	Meeting, Assessment Coordinator
July 26, 2012	College of Business Executive Committee meeting presentation
July 26, 2012	Meeting, Political Science faculty representatives – honors pilot
August 3, 2012	Meeting, Director SoTO – Faculty Learning Communities
August 6, 2012	Meeting, Assessment Director and Director SoTO
August 9, 2012	Meeting, Marketing and Creative Services
August 9, 2012	Meeting, Director SoTO – Faculty Learning communities
August 16, 2012	College of Science Faculty Assembly presentation
August 19, 2012	Promotional table at FAU Freshman Club-fest
August 20, 2012	College of Nursing Faculty Assembly presentation
August 21, 2012	Meeting Assessment coordinator
August 21, 2012	Meeting, Faculty Arts and Letters – Marketing efforts
August 24, 2012	College of Design and Social Inquiry Faculty Assembly presentation
August 24, 2012	Meeting, Director SoTO – Faculty Learning communities
August 31, 2012	Harriet L. Wilkes Honors College Faculty Assembly presentation
August 31, 2012	Meeting, Assessment Coordinator and Director SoTO
September 5, 2012	Meeting, Student Affairs Staff
September 7, 2012	College of Education Faculty Assembly presentation
September 11, 2012	QEP Document sent to SACS Leadership Team
September 13, 2012	College of Medicine Faculty Assembly presentation
September 17,2012	Meeting Student Government Body President and Governor
September 18, 2012	Meeting, Enrollment Management Staff
September 18, 2012	Meeting, SACS Leadership Team
September 24, 2012	Presentation at FAU's student Hazing seminar
September 25, 2012	QEP Document distributed to University community through website
September 25, 2012	Presentation to students in SLS class – Honors LLC
September 28, 2012	College of Arts and Letters Faculty Assembly presentation
September 28, 2012	College of Business Faculty Assembly presentation
October 1, 2012	Jupiter Forum for Faculty and Students
October 2, 2012	Meeting, Vice President Enrollment Management
October 10, 2012	Boca Raton Forum for Faculty and students
October 11, 2012	Davie Forum for Faculty and Students
October 19, 2012	College of Engineering and Computer Science Faculty Assembly presentation
October 2012	University Libraries Faculty presentation
	Faculty Senate

Appendix H: Conferences and Information Gathering – External

Date	QEP Attendees	Description
October 14 – 15, 2011	Donna Chamely-Wiik Jerome Haky	Florida State-wide Undergraduate Research Conference (UCF)
October 19 – 22, 2011	Donna Chamely-Wiik Jeffrey Buller	National Collegiate Honors Conference (NCHC)
December 3 – 6, 2011	Edward Pratt Jeffrey Buller Jennifer Peluso Donna Chamely-Wiik	Southern Association of Colleges and Schools (SACS) Conference in Orlando, Florida
January 30, 2012	Donna Chamely-Wiik	Conference call with University of Central Florida
January 31, 2012	QEP Executive Committee SACS Leadership Team	Site visit by Dr. M. Smith of Southern Association of Colleges and Schools
February 13, 2012	Donna Chamely-Wiik Jennifer Peluso	Conference call with University of North Carolina at Chapel Hill
February 29, 2012	Donna Chamely-Wiik Jennifer Bebergal Patricio Coicou Melissa Crawford	Site visit to University of Central Florida
April 16 – 17, 2012	QEP Steering Committee, Student representatives, SACS Leadership team representatives	Site visit by external evaluator Dr. Thomas Pusateri of Kennesaw State University
May 8, 2012	Donna Chamely Wiik	Conference call with George Mason University
May 23 – 25, 2012	Donna Chamely-Wiik	Council of Undergraduate Research Institute: Initiating and Sustaining Undergraduate Research Programs at the University of Michigan
June 1, 2012	Donna Chamely-Wiik	Conference call with University of Missouri, Columbia – Undergraduate Research
June 22, 2012	Donna Chamely-Wiik	Conference call with University of South Florida
July 20, 2012	Donna Chamely-Wiik	Conference call with University of Houston- QEP
July 26, 2012	Donna Chamely-Wiik	Meeting, Broward College QEP
October 19 – 20, 2012	Daniel Meeroff Donna Chamely-Wiik Mirya Holman Jennifer Peluso	5th Annual Florida State-wide Symposium: Engagement in Undergraduate Research, Orlando, Florida
December 8 -11, 2012	Donna Chamely-Wiik	2012 SACS Commission on Colleges' Annual Meeting in Dallas, Texas

Appendix I: Marketing

Task	Method	Date
Create a QEP logo & slogan	• Distinction through Discovery slogan adapted from Honors Education Task Force • Graduate student Brittany Shaw in collaboration with Marketing and Creative Services established logo	Fall 2011 Spring 2012
Showcase student and faculty efforts	• Call for student and faculty interest stories through announcements, email blasts, Facebook • Photograph and interview students • Include student spotlights on QEP website	Spring 2012 Summer 2012-present
Update QEP website	• New layout established and re-designed QEP website updated to include information of plan in development • QEP document placed on website for review	Summer 2012 September 2012
Establish QEP videos	• Showcase activities and main goals of our QEP • Videos played at FAU football games and through digital signage, QEP website on all campuses	Fall 2012
Market QEP through print	• University Press news-highlight • ½ page advertisement in Student Handbook • Trifold informational brochures in all cafeteria tables • Banners, posters and fliers on 3 campuses • Distinction through Discovery quick-fact fliers	January 2012 August 2012 January 2013 January 2013 January 2013
Marketing materials	• Flash Drives featuring QEP logo with slogan • Pens and pencils featuring QEP logo and slogan	Fall 2012-2013
Market QEP through web presence	• QEP website routinely updated • Announcements, myfau, blackboard, email blasts, quick facts for faculty, staff and students • QEP hot-link on FAU home-page • Rotating stories about QEP on main FAU banner	Fall 2010-2013 Spring 2012-2013 Fall 2012-2013
Update University Leaders	• President's State of the university address, Board of Governors and Board of Trustee meetings , SACS Leadership team meetings	August 2011-2013
Update Faculty and Staff	• Meetings and presentations with Deans, Chairs, Executive committee, Faculty assembly, UUPC, Faculty senate, department and new faculty at orientation • Student affairs, CTL and Enrollment management Directors meeting • QEP Faculty Forums on three campuses • Quick-facts brochure on QEP mailed to faculty	Fall 2010 - 2013 September 2012 October 2012 January 2013
Update Students	• CSI and QEP table at FAU Welcome week event • Classroom presentations in Fall SLS 1502 classes; • Computer monitor displays in CTL and other digital signage • QEP Forums on three campuses	August 2012 Fall 2012 Fall 2012 Fall 2012

Appendix J: Modules in the QEP Focused Faculty Learning Community

Part I. Getting Participants the Basic Knowledge They Need

MODULE 1: Distinction Through Discovery: Basic concepts and best practices

1.1 Defining Distinction Through Discovery: Question. Explore. Pursue.

1.2 Review of peer-reviewed literature about best practices in integrating research and inquiry into teaching and learning

1.3 Distinction Through Discovery: Creating curricular and co-curricular opportunities for research and inquiry at FAU

1.4 Student Learning Goals: What do you want YOUR undergraduate students to look like when they finish?

Participants will:

- Articulate the value of integrating research- and inquiry-rich learning experiences into their courses
- Define categories of research and inquiry experiences supported by the QEP
- Identify potential curricular revisions to pursue and some associated actions for these (e.g., adding syllabus statements, revising assignment instructions and rubrics, clarifying presentation guidelines)
- Outline an initial set of targeted student knowledge, skills, and abilities for their programs (Student Learning Goals)

Part II. Institutional Best Practices and Resources

MODULE 2: FAU Honors Program Case Studies

2.1 Upper-Division honors programs at FAU

2.2 Wilkes Honors College at FAU

Participants will:

- Define features of an upper-division honors program at FAU

- Identify curricular and co-curricular best practices of FAU's upper-division honors programs and Honors College toward QEP goals
- Select a set of "honors best practices" that are directly relevant to participants' own programs
- Refine Student Learning Goals and associate specific curricular and co-curricular best practices from this module with those goals

Part III. Pedagogies, Student Learning, and Program Improvement

MODULE 3: Communication

3.1 Using writing in the major

3.1 Other forms of communication

Participants will:

- Identify what types of writing and other forms of communication are important for their programs' goals
- Determine how much writing and communication support (outside of program faculty and staff) may be needed to develop student communication to the level the program would like to see students achieve
- Refine list of Student Learning Goals to incorporate specific communication knowledge and skills

MODULE 4: Active Learning Experiences

4.1 Ways to engage students in the curriculum with research and inquiry

4.2 Identifying appropriate pedagogies for Exposure, Skill Building, and Intensive courses

Participants will:

- Identify a number of relevant active engagement pedagogies based on research and inquiry

- Produce a "strategy map" that links each of the program's Student Learning Goals with a specific active engagement strategy

MODULE 5: Technology

5.1 Pedagogical tools and course delivery

Participants will:

- Define a number of course delivery modes available at FAU and identify which one(s) are most appropriate for the curricular and co-curricular emphases of research and inquiry in their programs
- Develop strategies for integrating technology, where appropriate, into program pedagogies (e.g., how to mine databases and resources for research questions, data mining)
- Identify resources to assist both faculty and students in their use of technologies (e.g., instructional design, library, technical assistance, peer support)

MODULE 6: Gauging Effective Teaching and Learning

6.1 What is assessment, and why do it?

6.2 "Bringing it home"

6.3 LiveText Introduction

Participants will:

- Produce a curriculum map showing where student competencies are developed within the curricular, co-curricular elements of the program and how these are aligned with QEP Student Learning Outcomes.
- Identify potential "indicators" of student learning goal achievement
- Develop operational definitions for student performance levels (e.g., "competent" vs. "mastery") and benchmarks
- Develop an assessment plan and evaluate its sustainability

Part IV. Curricular (re)Development

MODULE 7: Proposal Development and Peer Review

Appendix K: Student Learning Outcomes and Performance Indicators

SLO 1: Knowledge. Students will demonstrate content knowledge, core principles, and skills. Contexts or measures of this could include:
- *Declarative knowledge*: Students will demonstrate knowledge of the vocabulary, history, theories or concepts specific to the discipline.
- *Research skills:* Students will demonstrate knowledge of the procedures involved in discipline-specific research (idea generation, literature review, data collection, etc.).
- *Technical skills*: Student will demonstrate technical skills related to the discipline (e.g., preparation of a business report or lesson plan, mastery of a musical instrument, fluency in a foreign language, use of statistical software).
- *Information Meta-literacy*: Use a range of information resources effectively to identify appropriate and relevant information resources
- Social Values: Identify the value of research and scholarly inquiry in resolving societal issues.

SLO. 2: Formulate Questions. Students will formulate research questions, scholarly or creative problems with integration of fundamental principles and knowledge in a manner appropriate to their discipline. Contexts or measures of this could include:
- *Posing Questions:* Identify an area or question worthy of deeper study within a discipline
- *Creating Critical Reviews:* Discover and critically interpret previous scholarly work related to relevant questions or problems
- *Constructing Conceptual Frameworks:* Demonstrate awareness of the theoretical basis for their work by identifying the specific conceptual framework and assumptions that guide the research or inquiry questions
- *Providing Logical Arguments.* Construct logical arguments or project rationale based on their analysis of previous scholarly work.

SLO. 3: Plan of Action. Students will develop and implement a plan of inquiry to address research and inquiry questions or scholarly problems. Contexts or measures of this could include:
- *Appropriate Methods.* Develop a plan to systematically investigate a question or problem using appropriate discipline-based inquiry strategies
- *Implementation.* Implement a plan of inquiry including collecting information and data
- *Feedback:* Seek and incorporate feedback from mentors and peers to refine the plan of action.

SLO. 4: Critical Thinking. Students will apply critical thinking skills to evaluate information, their own work, and the work of others. Contexts or measures of this could include:
- *Analysis.* Analyze collected information
- *Interpretation and identification.* Interpret the results of their own systematic inquiry to respond to problems or questions. This includes an identification of the limits of their own work and the context provided by prior and future scholarly work to be conducted;
- *Working with others.* Critically review the work of their peers and provide them with meaningful formative feedback.

SLO. 5: Ethical Conduct. Students will identify significant ethical issues in research, creative, and scholarly activity and/ or address them in practice. Contexts or measures of this could include:

- *Ethical Integrity.* Demonstrate ethical integrity by recognizing, engaging in, and advocating for responsible, safe, ethical inquiry-related practices.
- *Academic Integrity.* Abide by the University's Code of Academic Integrity which includes (but is not limited to) the proper citation of sources, honesty about one's identity and the use of assistance and/or authorized materials, or compliance with regulations and instructions for assignments, examinations, or other academic or professional work.

SLO. 6: Communication. Students will convey all aspects of their research, creative, or scholarly activity (processes and/or products) in appropriate formats, venues, and delivery modes based on the conventions of their disciplines. Contexts or measures of this could include:
- *Clarity:* Grammar/syntax, organization, proper representation of information
- *Format:* Proper use of discipline-related or other preferred styles for the presentation of information (e.g. APA, MLA,)
- *Mode:* Demonstrate professional communication skills in written, oral, visual, auditory, digital, performance/exhibition, or other formats to share results of systematic inquiry
- *Audience:* Communicate the processes and/or results of their scholarly activity effectively to appropriate or multiple audiences (e.g. collaborators, supervisors, participants, observers, and/or critics)

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Appendix L: FAU QEP Pilot Program Curriculum Matrix

E- Research and Inquiry Exposure: Students learn about current practices, literatures, and methodologies in the discipline. Learning is guided through discussion; colloquia; assignments that introduce research and inquiry concepts, processes, and techniques, or other novice-level pedagogies. **S-Supported Research and Inquiry Skill Building**: Students develop intermediate-level discipline-specific inquiry skills and more in-depth knowledge of methodologies. Learning is guided through advanced research discussions and critiques; practice writing or producing specific components of scholarly work with some scaffolding; developing project proposals, etc. **I-Independent Research and Intensive Inquiry**: Students learn to successfully and independently apply and implement discipline-appropriate research and inquiry knowledge and skills. Learning is guided through independent study; thesis projects; assembly and presentation of portfolios, performances, etc.

	Accounting Scholars Program											Political Science Honors Program					Biology Honors Program			
	ACG3131	ACG3341	ACG3141	ACG4401	ACG4651	TAX4001	ACG4501	TAX4011	Case Competition	Co-curricular 1	Optional Internship	POS 4391	Senior Thesis Seminar	DIS	Co-curricular 1	Co-curricular 2	BSC 4917	BSC 4918	DIS	Co-curricular 1
Student Learning Outcomes										Beta Alpha Psi/ASA/ Professional Meetings					FAU Undergrad Research Journal	FAU Undergrad Research Symposium				FAU Undergrad Research Symposium
SLO 1:Knowledge	E	E	E,S	E	E,S	E	E	E,S	I	E	I	S	I	I	I	I	S	I	I	I
SLO 2:Formulate Questions			E		E,S			E,S	I			I	I	I	I		I	I	I	I
SLO 3: Plan of Action	E	E	E,S	E	E,S	E	E	E,S	I		I	I	I	I			I	I	I	I
SLO 4: Critical Thinking	E	E	E,S	E	E,S	E	E	E,S	I		I	S	I	I			I	I	I	I
SLO 5: Ethical Conduct	E			E,S					I	E	I	E,S	S,I	I			I	I	I	I
SLO 6: Communication	E	E	E,S	E	E,S	E	E	E,S	I		I	S	I	I			E	S	I	I

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Appendix M: Rubric for Assessment example

Fall 2012 Honors Program	Fall 2012 Pilot Course	SLO	Selected Indicator	Assignment	Research Component Level Link	Assessment Rubric		
						Developing	Competent	Exemplary
Accounting Scholars Program	ACG 3341 (level E)	**SLO 1: Knowledge** Students will demonstrate content knowledge, core principles and skills.	**Information Meta-literacy:** Use a range of information resources effectively to identify appropriate and relevant information resources	**Professional Norms Research Paper**: Students will develop and implement a plan of inquiry to determine and describe appropriate professional norms for a variety of venues.	**Level E** : Research and inquiry concepts are introduced as students research best practices in professional attire, and identify resources to apply best practices to varying professional venues	Fails to use information resources to develop and implement a plan of inquiry to describe appropriate attire for each of the venues.	Adequately uses information resources to develop and implement a plan of inquiry to describe appropriate attire for each of the venues	Articulately uses information resources to develop and implement a plan of inquiry to describe appropriate attire for each of the venues
Political Science Honors Program	POS 4391 (level S)	**SLO 3: Plan of Action** Students will develop and implement a plan of inquiry to address research and inquiry questions or scholarly problems	**Appropriate Methods:** Develop a plan to systematically investigate a question or problem using appropriate discipline-based inquiry strategies .	**Draft Prospectus:** Students will develop and implement a plan to investigate a research question.	**Level S:** Intermediate-level discipline specific research and inquiry concepts are practiced in a draft prospectus responding to a research question.	Fails to develop and implement a plan of inquiry to investigate a research question.	Adequately develops and implements a plan of inquiry to investigate a research question.	Articulately develops and implements a plan of inquiry to investigate a research question.
Biology Honors Program	BSC 4917 (level S)	**SLO 3: Plan of Action** Students will develop and implement a plan of inquiry to address research and inquiry questions or scholarly problems	**Appropriate Methods:** Develop a plan to systematically investigate a question or problem using appropriate discipline-based inquiry strategies .	**Draft of Research Project:** Students will develop and implement a plan to investigate a research question.	**Level S:** Intermediate-level discipline specific research and inquiry concepts are applied to a submitted plan of research in response to an approved research question.	Fails to develop and implement a plan of inquiry to investigate a research question.	Adequately develops and implements a plan of inquiry to investigate a research question.	Articulately develops and implements a plan of inquiry to investigate a research question.

Appendix N: Alignment of BOG, IFP Outcomes to QEP Learning Outcomes

	BOG Core Competencies			General IFP Outcomes					IFP Outcomes for Written Communication			
	Content/ Discipline Knowledge or Skill	Communication	Critical Thinking	1. Knowledge in several different disciplines	2. The ability to think critically	3. The ability to communicate effectively	knowledge is discovered, challenged, and transformed as it advances	5. An understanding of ethics and ethical behavior	1. Produce clear writing that performs specific rhetorical tasks	order to position their own ideas and arguments relative to the arguments and strategies of others	3. Use writing not only to communicate but also to think critically-examining assumptions that underlie the readings and their own writing	standards that apply to the use of external sources in one's writing
1. Knowledge. Students will demonstrate content knowledge, core principles, and skills.	X			X			X	X	X	X		
2. Formulate Questions. Students will formulate research questions, scholarly or creative problems with integration of fundamental principles and knowledge in a manner appropriate to their discipline.	X		X	X	X		X		X	X	X	
3. Plan of Action. Students will develop and implement a plan of inquiry to address research and inquiry questions or scholarly problems.			X	X	X		X		X	X	X	
4. Critical Thinking. Students will apply critical thinking skills to evaluate information, their own work, and the work of others.			X		X		X	X	X	X	X	
5. Ethical Conduct. Students will identify significant ethical issues in research, creative, and scholarly activity and/ or address them in practice.	X		X	X	X			X	X	X	X	X
6. Communication. Students will convey all aspects of their research, creative, or scholarly activity (processes and/or products) in appropriate formats, venues, and delivery modes based on the conventions of their disciplines.		X		X	X	X			X	X	X	
BOG Core Competencies												
Content/ Discipline Knowledge or Skill				X			X	X		X		X
Communication						X			X			
Critical Thinking					X		X	X		X	X	X

Appendix O: Timeline for Assessment of Program Outcomes (Assessments reviewed during QEP Pilot are highlighted in blue.)

QEP Program Outcome	Program Indicator	Measure(s)	Data	Benchmarks
1. More students and faculty will be involved in undergraduate scholarly research and inquiry	Indicator 1: # of faculty utilizing resources/programs related to undergraduate research, scholarship and creative activities.	Faculty Learning Community	Scholarship of Teaching Office	2 QEP focused FLC = 24 faculty per year; all years
		Brown Bag Lunches/Workshops	Establish OURI/ SOTO/ UCEW template - # of workshops held; # faculty attending workshops	Year 1: Identify baseline for other QEP professional development opportunities; Year 5: 25% increase from baseline
		Master Faculty Mentors	# programs hosted by master mentors per college , and # faculty attending	Yr. 2 = 6; Yr. 3 = 4, Yrs. 4- 5 = 10 Responsibility of Faculty mentors to provide annual summary to OURI.
		CUR Membership	# of faculty who register as part of FAU's institutional membership to CUR	10% of FAU faculty will have membership by year 5.
		External Professional Development related to Undergraduate Research and Inquiry	# faculty attending conferences related to URI supported by the QEP. OURI through TAR's done by the office	$10,000 per year for faculty professional development travel distributed among different colleges and programs
	Indicator 2: # of students utilizing resources/programs related to undergraduate research, scholarship and creative activities	Student Workshops on URI/Skill Building	# workshops offered and # of student participating in workshops	Baseline 2012-13, plan to grow to at least one student workshop every semester.
		# of students seeking support for URI from UCEW	# students making appointments for assistance with their honors theses or other research assignments for research courses.	Develop a means of disaggregating utilization data from the UCEW system. Yr. 5, 38 additional sessions geared towards research writing
		CUR Membership	# of students who register as part of FAU's institutional membership to CUR	10% of FAU faculty will have membership by year 5.
		Peer mentoring program	# students who attend peer mentors office hours	Baseline Fall 2013-14
		Use of Office of Undergraduate Research and Inquiry website	# of hits to OURI website	Benchmark summer 2013
	Indicator 3 : # of student presentations	Internal presentations including Undergraduate Research Symposium, Honors Symposium and other college events	# of students presenting at the Undergraduate Research Symposium,	Baseline: 49 poster and oral presentations in 2011 and 54 in 2012; Year 1: 60 presentations; Year 5: 96 presentations
		Internal presentations at College-level symposia	# of students presenting at specific college symposia	Baseline: 2012-13, increase by 10% in 5 years.
		External presentations /exhibits/recitals by students funded by FAU	# of students traveling to present work outside of FAU	Baseline 2012-13 travel award data from Student Government
	Indicator 4: # of student authorships	Internal Student Authorship: FAU Undergraduate Research Journal	# of submissions and # of published materials	Baseline 2012-13; Year 5: 20% increase in submitted manuscripts
		Internal Student Authorship: FAU Honors Thesis	FAU Libraries or Registrar tracks # of Honors Thesis	80 per year undergraduate research honors theses on all campuses; Year 1: 10% increase; Year 5: 50% increase
		Coastlines Literary magazine	# of submissions and # of published materials	Baseline 2012-13, Department of English Coastlines Magazine
	Indicator 5: # of student on stipend supported projects	Internally supported projects: undergraduate research grants	# of undergraduate research grants applied for and funded	Baseline URG: 37 funded 2011; Year 1: 47 funded; Year 5: 90 funded
		Summer Undergraduate Research Fellowship	# of funded SURF recipients	6 in year 3, 10 by year 5
2. Curricular changes will be	Indicator 1: Undergraduate	# of Honors Programs including Honors in the major	Registrar's office enrollment data	Baseline: 8; Year 1: 14; Year 5: 23 (50% of all UG programs at FAU)

implemented to integrate the teaching and research missions of our university	Honors Programs	# of Students in Honors Programs	Registrar's office enrollment data	Baseline: 1.8% - 475 Total; Year 1: 500; Year 5: 3% of enrollment (Note: FL institutions are about 3%)
		# of students successfully completing Honors Programs	Registrar's office completion data	Baseline: 150; Year 1: 160; Year 5: 300
	Indicator 2: Undergraduate Programs	# of undergraduate courses that are research and inquiry enhanced	Registrar's office enrollment data	Establish a new course # for Research DIS/ script in syllabus
		# of students registering for research and inquiry enhanced courses	Registrar's office enrollment data	Baseline 2014, 15% increase in student registrations by year 5.
		# of students successfully completing research and inquiry enhanced courses	Registrar's office completion data	Baseline 2014, 10% increase in student registrations by year 5.
3. Participating undergraduates will become independent, self-motivated critical thinkers who are prepared for their future goals	Indicator 1: Program Completer Follow-up	Post- graduation or program completion analysis	# of theses, research projects; publications, presentations, exhibitions, recitals etc. . # continuation onto graduate school # research internships and Job placements % Pass rates on professional exams	Establish a baseline 2012-13 for follow-up model
4. Faculty and students will be recognized and rewarded for participation in undergraduate research and inquiry	Indicator 1: University-wide Faculty and Student Awards	faculty	# of faculty awards for recognition of undergraduate research and creative activities	Baseline: 0 ; Year 2: 3; Year 5: 3
	Indicator 2: Faculty and Student Awards	students	# of student awards for recognition of undergraduate research and creative activities	Baseline: 0 ; Year 2: 6; Year 5: 6
5. An Office of Undergraduate Research and Inquiry and associated website will be established and sustained as a supporting structure for FAU's undergraduate research and inquiry efforts	Indicator 1: Support Structure	Establish an Office of Undergraduate Research and Inquiry	# of staff, dedicated assignment hours	Baseline: 1 Year 1: establish an office and partial staff with some student support and programs Year 5: sustain office and full staffing with student support and programs
		Design and launch an Office of Undergraduate Research and Inquiry Website	Draft pages of website design	Baseline: none Year 1: design and launch website Year 5: sustain website with full faculty and student support
6. A method for assessing participation in undergraduate research and inquiry for both formative and summative purposes will be established and implemented	Indicator 1: Assessment Plan	Develop an Assessment plan to include direct and indirect measures of curricular activities	SLO performance data	Baseline: SLOA, WAC and IFP benchmarks Year 1: QEP SLO performance data collected, reviewed and used to inform program design. Year 5: full implementation of performance data systems,
		Develop an Assessment plan to include direct and indirect measures of co-curricular activities	All items from the QEP pilot (represented in blue)	Baseline 2012-13
	Indicator 2: QEP Assessment Committee	Establish QEP Assessment Committee	# of participants, colleges represented	Benchmark 2012, increased participation from programs offering Distinction through Discovery curriculum
	Indicator 3: Assessment Tool	Pilot an assessment tool to use in the collection and reporting of QEP student performance data	evaluate free pilot program use and implementation	Baseline: none Year 1: pilot program use of Livetext (gratis) Year 5: sustain website with full faculty and student support
7.FAU will be recognized for student and faculty undergraduate research and inquiry opportunities	Indicator 1: Student Feedback	Develop surveys for incoming, matriculated and exiting students	Awareness, Interest and value placed on undergraduate research and inquiry; Satisfaction with experiences	Development 2013- Awareness and Satisfaction Surveys
	Indicator 2: NSSE	Continue NSSE participation	Trend analysis of NSSE data	Benchmark 2010 NSSE data, meet Carnegie Classification goal within 5 years

Appendix P: Acknowledgements

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