Assessing Student Learning Outcomes

IUPUI Summary Response to ICHE Goal 6

July 2007

Learning Outcomes for all IUPUI Undergraduates

Between 1991 and 1998, IUPUI faculty and staff worked toward a coordinated approach to general education for IUPUI undergraduates in a series of multi-disciplinary committees, day-long retreats, consultant-led workshops, and town hall meetings. This process culminated in 1998 with the adoption by the IUPUI Faculty Council of six Principles of Undergraduate Learning (PULs). Between 2005 and 2007 several faculty groups worked on revisions and on May 1, 2007 the following principles were approved by the Faculty Council:

1. **Core Communication and Quantitative Skills** - the ability of students to express and interpret information, perform quantitative analysis, and use information resources and technology—the foundation skills necessary for all IUPUI students to succeed.
2. **Critical Thinking** - the ability of students to engage in a process of disciplined thinking that informs beliefs and actions, remaining open-minded, reconsidering previous beliefs and actions, and adjusting his or her thinking, beliefs, and actions based on new information.
3. **Integration and Application of Knowledge -** the ability of students to use information and concepts from studies in multiple disciplines in their intellectual, professional, and community lives.
4. **Intellectual Depth, Breadth, and Adaptiveness -** the ability of students to examine and organize discipline-specific ways of knowing and apply them to specific issues and problems.
5. **Understanding Society and Culture** - the ability of students to recognize their own cultural traditions and to understand and appreciate the diversity of the human experience.
6. **Values and Ethics** - the ability of students to make sound decisions with respect to individual conduct, citizenship, and aesthetics.

The Principles of Undergraduate Learning are the essential ingredients of the undergraduate educational experience at IUPUI. They form a conceptual framework for all students' general education. Rather than being taught only in a set of specified courses offered primarily during a student's first two years of college, the PULs permeate the entire undergraduate curriculum, including the major field of study. Expectations related to the PULs that begin in the first year and continue through graduation speak to what graduates of IUPUI will know and be able to do upon completing their degrees and thus define the meaning of an IUPUI baccalaureate degree, regardless of major.

Engaging Learning Opportunities for Students

Through the combined efforts of faculty and administrative support staff, all IUPUI students should experience each of the following:

1. Prior learning is assessed in mathematics and selectively in foreign languages, chemistry, and other disciplines upon matriculation and students are placed in courses appropriate to their levels of achievement.
2. Students are introduced to the PULs in their First-Year Experience courses and Themed Learning Communities. These courses use active learning pedagogies and proven best teaching and learning practices.
3. Students continue to develop their PUL-related knowledge and skills in coursework, particularly in Gateway courses—those 30 or so introductory courses that account for over 30% of all undergraduate credit hours. Many of these courses have been revised over the past several years to support increased student engagement and success.
4. Students' PUL-related knowledge and skills are assessed in the courses in which these concepts are taught, with baccalaureate-level skills assessed in capstone courses or in association with other culminating experiences such as internships, undergraduate research studies, design projects, or professional licensure exams. Reflection and hands-on experiences related to students' chosen fields characterize many of these experiences.
5. Faculty and professional staff use both direct and indirect measures of student learning to improve curriculum, instruction, and assessment processes.

Administrative Structures and Practices that Promote Learning

Various mechanisms have been established at IUPUI to ensure that the five processes listed above are occurring and that they are having a positive impact. These mechanisms include both locally developed and national surveys, comprehensive academic program reviews, performance indicators, and annual assessment reports.

Surveys

Indirect evidence of student learning is collected annually through surveys administered to representative samples of enrolled undergraduates. The locally-developed *IUPUI Continuing Student Survey* was administered first in 1995 and annually until 2001 when this survey was moved to a biennial administration to permit use of the *National Survey of Student Engagement (NSSE)* in the alternate years.

Program Review

Comprehensive academic program review provides an additional mechanism for ensuring that general education instruction and assessment are occurring according to plan. Peer review of all academic units (and many student support and administrative units) is conducted every seven years and review teams are directed to comment on the quality of curricula, methods of instruction, and the evidence of student learning in general education (based on the PULs) as well as the major field of study.

Performance Indicators

IUPUI has developed performance indicators designed to chart progress on ten institutional goals, including student learning outcomes. Underlying each of the macro-indicators related to teaching and learning is a rich set of sub-indicators based on direct and indirect evidence derived from the sources just described (see www.iport.iupui.edu and http://www.iport.iupui.edu/pi/).

Annual Assessment Reports

To ensure that IUPUI students have opportunities to participate in engaging learning experiences that are aligned with expected learning outcomes, IUPUI faculty have developed the template that appears below for initiating and guiding assessment of learning in academic units.

What general outcome do we seek?	How will we know this outcome when we see it? That is, what will students know and be able to do upon graduation?	How will students learn these things (in or out of class)?	What evidence can we provide to demonstrate what students know and can do? That is, how can we assess student learning?	What are the assessment findings?	What improvements have been made based on assessment findings?

An oversight group, the Program Review and Assessment Committee (PRAC), representing each academic unit prepares an annual report on the assessment of student learning using the template illustrated above. The campus report is based on individual reports submitted by each academic unit. The content of the campus report is reviewed by a faculty committee, and suggestions for improvement of approaches to instruction and student support services, as well as assessment methods, are offered.

ePort

IUPUI's electronic portfolio (ePort) enables students and faculty to document student learning of the PULs, using authentic student work produced in and out of the classroom as evidence of achievement for both accountability and improvement. Work that students collect and submit to ePort provides a rich source of documentation for the annual assessment reports and guides faculty efforts to improve curriculum and pedagogy. As faculty members and departments incorporate ePort into their curricula, they simultaneously refine courses and whole curricula to address desired learning outcomes more deliberately and effectively. Thus, ePort supports improvement in learning outcomes at the same time that it demonstrates these outcomes.

Assessment Findings and Responsive Actions

Surveys

IUPUI freshmen and seniors have had opportunities to respond to the National Survey of Student Engagement (NSSE) three times, in 2002, 2004, and 2006. We have constructed scalelets that cluster NSSE items related to the engaging pedagogies we employ and to four of the PULs: Communication and Quantitative Skills, Critical Thinking, Understanding Society and Culture, and Values and Ethics. Using the criteria of consistent improvement with each administration and at least a three-point increase from 2002 to 2006, ten scalelets show significant improvement for first-year students at IUPUI:

Active learning (5.2 point increase)
Collaborative learning (2.9 point increase)
Course interaction (4.7 point increase)
Information technology (15.5 point increase)
Support for student success (7.2 point increase)
Gains in practical skills (11 point increase)
Overall satisfaction (4.6 point increase)
Communication and quantitative skills (8.5 point increase)
Critical thinking (4.4 point increase)
Values and Ethics (11 point increase)

Five scalelets demonstrate improvement in the perceptions of seniors:

Information technology (8.1 point increase)
Support for student success (4.3 point increase)
Gains in practical skills (3.3 point increase)
Communication and quantitative skills (5.1 point increase)
Values and ethics (6.5 point increase)

Since 2000, IUPUI faculty and staff have undertaken a variety of initiatives designed to improve student learning and success. These NSSE responses provide evidence that the initiatives have increased student engagement and satisfaction in the first year, and as these students have progressed through the curriculum, the engagement of seniors has begun to increase as well.

Program Review

Responding to recommendations received following its review, the School of Music has instituted two new programs: music technology and music therapy. The Kelley School of Business and the School of Music are considering offering a Master of Business Administration degree with a focus on music technology. Restructuring of the school has been completed.

The proposal for a PhD in Health and Rehabilitation Sciences was approved by the Graduate Affairs Committee in April 2007 and will be forwarded to the Academic Leadership Council.

In a decision related to program reviewers' recommendations, the schools of Education and Science have established the Urban Center for the Advancement for Science and

Mathematics Education (UCASE). Through a combination of program development, mathematics and science education research, and graduate and undergraduate scholarships, UCASE will pursue a common goal of increasing the numbers of highly qualified science and mathematics teachers.

In response to recommendations made by the team that reviewed the Department of English, faculty entered into a planning process that established seven priorities addressing the following themes: hiring needs; revising key policies and guidelines; revisiting curricula for department majors; improving morale; focusing attention on research and teaching; focusing attention on personal professional development; and developing a strategic plan.

The Physics department has begun systematic tracking and follow-up on all inquiries for information about the graduate program. The most promising potential students are invited for campus visits. The department is exchanging graduating students' data with other universities and then contacting those students whose data are received. Attempts are being made to increase the visibility of the Physics program among colleges in Indiana and the surrounding states by preparing and sending brochures, inviting faculty from these institutions to visit IUPUI, and contacting graduating students from these colleges. A Graduate Assistance in Areas of National Needs (GAANN) grant funded by the Department of Education for $400,000 for 3 years, plus a required match from IUPUI of $97,000 (being provided by the Graduate School and the School of Science) will support 16-20 graduate fellowships over the next 3 years. In addition to research grants from federal and state agencies and private foundations, faculty continue to seek graduate student support from agencies such as the American Heart Association and Purdue Research Foundation, which offer programs for graduate student assistance. As the newly recruited faculty settle into their roles at IUPUI, more grant activity should help to garner greater support for graduate students.

The Department of Biology has changed requirements in the BS program to make research and a senior thesis an option rather than a requirement and hired two very promising faculty to connect the department with the Department of Biomedical Engineering. Faculty have earned over $2.5 million in new research funding.

Biomedical Engineering continues to be guided by feedback from last year's BME department review: The recommendation to *increase diversity hiring* (especially female) has led to the hiring of a new minority female faculty member and will continue to influence search and screen activities. The recommendation for *improved allocation of space* has led to an increase and consolidation in a centralized area of department laboratory and teaching space. The recommendation to *infuse entrepreneurship into BME courses* will shape some of the topics covered in our capstone design course, to be taught for the first time this fall. Finally, the recommendation to *clarify elective course offerings* has led to the development of a more comprehensive approved depth area electives list, and has influenced the planning of appropriate courses for the elective stream.

Performance Indicators

Two of IUPUI's ten mission-related goals focus directly on student learning. These goals are stated: "support and enhance effective teaching" and "enhance undergraduate student

learning." Each year faculty and staff review panels are convened to assess IUPUI's progress in these areas using the following scoring rubrics:

> A *green light* indicates that the goal is being achieved at an acceptable level or is clearly heading in the right direction.
>
> A *yellow light* indicates that the goal is not being achieved at an acceptable level, though it might be improving or declining slightly.
>
> A *red light* indicates that the current status or direction of change is not acceptable.

The data used to evaluate success in the area of supporting and enhancing effective teaching show increasing levels of faculty participation in professional development opportunities related to teaching and learning and a significant increase in the use of technology to improve teaching and learning. *Green lights* have been assigned to the subgoals of "institutional priorities for teaching development and practices," "development of technology-based and technology-assisted teaching capacities," and "use of assessment results to support and enhance effective teaching and student learning and course and curriculum changes." *Yellow lights* have been assigned to the subgoals of "engagement of students through the curriculum and co-curriculum in learning about their own and other culture and belief systems."

The data used to evaluate success related to the goal of enhancing undergraduate student learning show that IUPUI is moving toward a more inclusive, welcoming, learning environment, with assessment efforts on the rise and improvements in student satisfaction. Student advising, however, is lagging behind other components of this goal, with current student and alumni surveys consistently documenting that this is an area needing improvement. Likewise, first-to-second year retention rates have not improved significantly, and they lag well below the retention rates of our peers. Review panels gave a *green light* to the subgoals "demonstration of students' general education and major-specific learning outcomes," "quality of the learning environment," and new graduates' contributions to their professions and communities, economically, socially, and culturally." A *red light* was assigned to "student academic progress and achievement" to indicate the need for more work to improve advising and retention to graduation.

The Student Electronic Portfolio

The IUPUI student electronic portfolio (ePort) is being designed to provide evidence of both achievement and improvement in each of the PULs as they are learned within the context of the student's major. Authentic evidence of individual student learning, as well as aggregated information about learning at the course, department, program, and campus levels will be increasingly available as the ePort software matures and is adopted by more departments across the campus.

The implementation of ePort is integrated with several concurrent initiatives, such as the establishment and maintenance of faculty Communities of Practice based on the PULs, Themed Learning Communities, General Studies Curriculum Development, Service

Learning/Community Engagement, and Faculty Development. This progress report therefore includes information about these integrative aspects of ePort implementation.

The academic year 2005-2006 saw a notable change in the implementation of ePort: the introduction of two-year Integrative Department Grants, designed to engage faculty at the department level in conversations about and improvement of student learning. The goal was to integrate the Principles of Undergraduate Learning explicitly into discipline-specific learning outcomes, and to develop assignments that would provide evidence of student learning in both the discipline and relevant Principles of Undergraduate Learning. Each department receiving a grant is provided funding for faculty to engage in significant planning for student learning, and for a team of specialists in instructional design, instructional technology, assessment, and information resources to support curricular transformation resulting from those discussions. Assignments integrating the Principles with learning outcomes for the major are submitted to ePort to document growth and achievement in student learning. The Department of Secondary Education and the Department of Computer and Information Technology were the recipients of the first round of grants and have made significant strides toward building curricula that more intentionally incorporate and assess the PULs and related discipline-specific learning outcomes, using customized versions of the ePort learning matrix. The Department of Visual Communication and the Division of Education at IUPU Columbus were recipients of the second round of grants, beginning this past academic year, and are making good progress. Proposals for next year are currently under consideration.

This focus on implementing ePort at the department level and the availability of modest funding support have generated considerable interest among IUPUI schools and departments, where faculty have begun to see ePort as a means of supporting learning and assessment of both disciplinary outcomes and the PULs. The ePort team, made up of representatives of the Office for Professional Development, Planning and Institutional Improvement, and University Information Technology Services, works intensively with these departments, both to guide and advise them on implementation of ePort and to seek their feedback on ongoing development of the software. Development priorities for the coming year include building assessment capabilities that will automate aggregation and disaggregation of assessment outcomes based on student work submitted to ePort.

The ePort team is also working to refine approaches to using ePort in our freshman Themed Learning Communities (TLCs), through small grants to faculty groups collaborating on teaching these linked courses. A primary thrust of this work, as with the Integrative Department Grants, is to embed ePort work in courses so that it supports TLC learning goals, rather than including ePort as an add-on. This incremental approach, using modest incentives and offering faculty and departments extensive guidance and support, seems to be working effectively to encourage department and faculty adoption and use.

1. **Themed Learning Communities** (TLCs): The TLCs combine 2-4 first year courses with a first-year learning experience around a particular theme, and thereby provide an excellent and integrated introduction to the PULs. The TLCs play an important complementary role to ePort in relation to Goal 6 in that they are an ideal site for students to integrate assignments in several courses for a particular PUL. Therefore they provide an excellent catalyst for student learning of the PULs in a context that is

truly integrated within the disciplines. Further information is available at http://www.opd.iupui.edu/COIL and then click on Themed Learning Communities.

2. **Communities of Practice** (CoPs): To date, five CoPs have been established, one for each of the PULs, except for Depth, Breadth, and Intellectual Adaptiveness, which is addressed in two additional Communities of Practice, namely Civic Engagement across all the PULs, and Technology and the Scholarship of Teaching and Learning. With a total engagement of around 80 faculty, these Communities are still fledgling. Nonetheless, they are doing important work in relation to ICHE Goal 6. They have refined the expectations for learning of the PULs at the introductory and intermediate levels and have developed some sample assignments that explicitly integrate the targeted PUL with discipline-specific concepts and knowledge. The expectations for learning appear in the ePort learning matrix, and the sample assignments provide well-structured opportunities for students to demonstrate their learning of the PULs in ePort. Further information is available at http://www.opd.iupui.edu/COIL and then click on Communities of Practice.

3. **General Studies**: The curriculum for General Studies is grounded in the Principles of Undergraduate Learning. In Spring 2005, General Studies faculty began to develop a three-credit course using ePort to document and assess learning in relation to the PULs. This was implemented in Spring 2006 with one class of pilot students. Since General Studies boasts the largest number of majors on campus, the involvement of this program provides a significant catalyst for engaging more students and more faculty in ePort as a means of documenting student progress in learning the PULs. Additionally, General Studies caps its curriculum with a capstone course requiring paper portfolios constructed entirely around the PULs. The portfolios are reviewed by faculty from across the campus. It is anticipated that this capstone course will begin using ePort for its capstone portfolios as soon as the infrastructure is fully developed within the Oncourse CL environment.

4. **Service Learning/Community Engagement**: Six departments (Sociology; World Languages and Cultures; Communication Studies; Sociology; Visual Communication; and Computer Information Technology) are currently involved with an initiative in the Center for Service and Learning to integrate service learning and community engagement meaningfully throughout the major. This engagement will be documented through reflections developed by the students in relation to the PULs. These reflections will be posted to the ePort to demonstrate the integration of service learning/community engagement with the PULs and with the major. Together with the Civic Engagement Across the PULs Community of Practice, the Center for Service and Learning is providing significant leadership in assessing student understanding of the PULs in relation to community engagement.

5. **Faculty Development**: The Center for Teaching and Learning provides several kinds of support for faculty who wish to learn how to use ePort to document progress and achievement in the PULs. The “ePort Airport” is a day-long workshop on the PULs and ePort, and is available to individual departments or other campus groups upon request. Individual technological support is provided, as well as a wealth of shorter workshops offered throughout the year. Every workshop involving course

development includes sessions on the PULs and information about how to develop assignments that integrate the PULs explicitly with discipline-specific concepts in order to demonstrate progress and achievement on ePort.

6. **Integrative Department Grants**: These grants provide resources from funding to technological, pedagogical, curricular, and assessment expertise to departments seeking to develop their curricula in ways that explicitly integrate the PULs throughout the major, providing not only opportunities for students to achieve a basic level of competence in all of the PULs in relation to the major, but also to grow and develop intellectual competence in the PULs as they progress through the major. This intellectual growth and achievement is documented and assessed using ePort.

The above seven initiatives provide a widening network for integrating and supporting the Principles of Undergraduate Learning throughout the campus, as well as increasing faculty engagement with ePort as a means for documenting progress and achievement in the PULs. Taking this intentionally incremental approach will enable faculty to come on board at a comfortable pace, ensuring that their motivation to enhance student learning of the PULs becomes the prime factor in their engagement.

Annual Assessment Reports

Direct and indirect sources of evidence of student learning are being used in every school to guide efforts designed to improve curricula, instruction, and student support services. Some examples of evidence and responsive improvements drawn from the 2007 reports from academic units are summarized below:

School (with Majors)	Source(s) of Evidence	Responsive Improvements
Business	Surveys and student feedback	Principles of Business Learning (based on PULs) were revised and adopted by both KSBI and KSBB.
Continuing Studies	Capstone course, written portfolio, and oral presentation based on portfolio	Portfolios are not individualized: students have the option of creating 1 of 3 different portfolios, depending upon the goal for their degrees.

School (with Majors)	Source(s) of Evidence	Responsive Improvements
Dental Hygiene	Surveys and feedback from students, faculty, patients, advisory committee, and alumni.	Added a new freshman learning community course to enhance mentoring of potential applicants by program faculty; added two external clinical sites to improve access to periodontal cases; added three new clinical competence exams to assess students' abilities to treat special patients' needs; added a mock licensure exam; participated in faculty calibration workshops to unify periodontal diagnoses among divisions of the department based on new guidelines for the regional licensure exam; incorporated Breeze software and more online learning in selected courses to be more responsive to current student learning preferences.
Education • Secondary	Benchmarks • Student reflections reporting on areas of growth and/or concern cited by faculty • Students view and analyze a content pedagogy teaching case	Faculty review the results of the benchmarks in light of program and course objectives and make modifications to address areas of weakness. Based on 2006 findings, a new, proactive system was developed to identify students who act in unprofessional ways early in the program so that these students can be assisted in their development. In addition, the assessment protocol was modified and a new rubric was designed to score the analysis of benchmark data.
Engineering and Technology • Biomedical Engineering	2005 comprehensive program review	• The recommendation to infuse entrepreneurship into BME courses is shaping some of the topics covered in the capstone design course to be taught for the first time in Fall 2007 • The recommendation to clarify elective course offerings has led to the development of a more comprehensive electives list.
• Computer and Information Technology	Assignments, tests, lab reports, project reports and presentations, final exams in courses; internship and project reports; student, alumni, and employer surveys; Industrial Advisory Board appraisals	Increased emphasis on oral and written communication skills; standardized the specific tools to be taught in all systems analysis and design courses.

School (with Majors)	Source(s) of Evidence	Responsive Improvements
• Construction Technology	Individual and group projects; capstone project presentations; laboratory reports; exams; student and employer surveys; senior exit interviews; peer reviews; Industrial Advisory Board discussions	• Industry Advisory Board recommendations have led to a new plan of study with several new courses as well as content changes in some courses. • Changes in instruction include increased use of technology in teaching, several new online courses, and more case studies, real life examples, and lab experiences to meet industry's needs.
• Design Technology	At least one course is identified to assess each PUL and ABET program outcomes.	The program was reviewed by ABET and was given full accreditation for six years. In addition, the program was recommended for full accreditation for ten years by NASAD.
• Electrical and Computer Engineering	Capstone project reports; laboratory reports; exams; student, alumni, and employer surveys; Industrial Advisory Board appraisals; oral presentations; term papers/project reports	• The engineering ethics course was revised to be more case-based. • Senior seminar is being discontinued and reconstituted as a sophomore seminar to give students earlier exposure to subjects such as interviewing, resume writing, and internships. • A senior design course will now be two semesters long, but still at 3 credit hours. • A new interdisciplinary course has been designed to emphasize the integration of knowledge from a number of technology areas.
• Electrical and Computer Engineering Technology	Course project reports (written & oral); capstone project reports (written & oral); research reports; formal laboratory reports; Design & Build project (assessed using rubrics); final exam; student and faculty surveys; Industrial Advisory Board appraisals	• Improve problem solving, a recitation section was added to ECET 107; retention and student GPA increased. • To improve critical thinking course objectives were added to suggest that lab reports have a section on conclusions. Then a rubric was developed to assess the conclusions section. • To improve teamwork, course objectives and assessment activities were added to some classes and lecture content was modified in the project course. • To improve attention quality and timeliness, course objectives and assessment activities were added in some classes. • To improve written communication, a grader was hired to assess grammar on some assignments throughout the curriculum. In addition, tablet PCs were purchased for faculty to facilitate their grading of electronically submitted reports.

School (with Majors)	Source(s) of Evidence	Responsive Improvements
• Freshman Engineering	Hourly and final exams, student surveys, oral presentations, peer evaluations, project reports, project assessment survey	• Results derived from course outcomes surveys, project report evaluation, and peer evaluations have produced changes in project design, instruction on teamwork, and teaching methods. • MATLAB was removed from ENGR 196 and 197 and placed in a separate course, ENGR 297. • Online quizzes were implemented in DD 190 courses taught at Butler. • Report writing instruction was added to ENGR 196. • A simple team-building/engineering design project (fruit drops) was added to ENGR 195.
• Mechanical Engineering	Capstone design project reports; laboratory reports; exams; term papers/project reports; oral presentations and jury evaluations; employer, student and alumni surveys; faculty feedback mechanism; Industrial Advisory Board and Student Advisory Board appraisals	• Jury evaluation of capstone design projects led to more emphasis on project evaluation and a design impact statement. • Course outcomes surveys led to the addition of term paper/technical writing exercises in certain classes to improve research and writing skills.
• Mechanical Engineering Technology	Laboratory written and oral project reports; capstone design project written and oral reports; assessed homework assignments linked to course learning objectives; assessed exam questions linked to course learning objectives; student satisfaction survey linked to Program Outcomes; graduation examination questions linked to Program Outcomes; alumni surveys linked to Program Outcomes; employer surveys linked to Program Outcomes; feedback from Industrial Advisory Board; faculty End of Semester Reflection documents.	• Online reference material was added to clarify a difficult topic in MET 111. • Course content in MET 141 was revised to include additional basic chemistry theory. • Multimedia animations and a new experiment were added in MET 211 to clarify difficult material. • An exam in MET 214 was revised to assess a difficult learning objective more effectively. • IN MET 344 additional homework, assignments, quizzes, and exams were incorporated to assess student learning objectives more effectively. The course content was transferred to PowerPoint with supplemental audio files and offered on-line for the first time.
• Organizational Leadership and Supervision	Quizzes, midterm exams, final exams; evaluation of oral and written reports; surveys of student attitudes toward progress	• Multimedia animations Reformat of final exams to improve measurement of the ability to "comprehend, interpret and analyze" text. • Introduction of audio conference chat into

School (with Majors)	Source(s) of Evidence	Responsive Improvements
	in meeting course objectives; students' self evaluation of performance in meeting PUL outcomes; alumni surveys; Industrial Advisory Board appraisals.	online classes to improve measurement of the ability to "communicate effectively... in small and large group settings." • Departmental re examination of the sequence PUL competency levels with the core courses to improve the potential for progressive skill development from basic to intermediate to advanced. • Addition of a required course in technical writing.
• Technical Communications	Oral presentations and written reports	TC faculty now offer to participate as jurors for senior design presentations for both engineering and engineering technology students.
Health and Rehabilitation Sciences	Standardized student evaluations of teaching. National licensure exams. Accreditation reviews.	• Faculty agreed on 14 core questions for student assessment of teaching. • Both Physical Therapy and Nutrition and Dietetics graduates exceeded the national average on their respective licensure exams. • Both Physical Therapy and Occupational Therapy programs had on-site visits and both received full reaccreditation status. Nutrition and Dietetics maintained its full reaccreditation status.
Herron	Assignments, projects, exams in courses, Sophomore Advancement Reviews, artist's statements at sophomore and senior levels, capstone courses, student surveys, alumni surveys, internship supervisors' reviews, 2nd looks assessments, senior exhibition, senior portfolio, video tape/DVD, teaching portfolio, lesson plans, written reflections on teaching & lesson plans, use of rubrics	Students who do not meet expectations in the Sophomore Advancement Review are placed on probation or denied advancement; now they are given instructions about what to do prior to being considered for a subsequent review. A new text has been adopted for the Herron Themed Learning Community and a new section will be added in Fall 2007; Visual Community Design (VCD) faculty plan to spend more time teaching research and writing skills; all VCD students now will be required to take a speech course.
Liberal Arts • Anthropology	Perceived need to integrate civic engagement and service learning components in the curriculum.	Selected upper-level courses for ethnographic projects such as those build and maintain partnerships with communities in Indianapolis threatened by predatory lending policies and urban blight.

School (with Majors)	Source(s) of Evidence	Responsive Improvements
• Geography	Student requests for concentrated time formats, i.e., 12 weeks instead of 16 weeks.	In selected courses, combinations of traditional in-class and newer online formats have been developed to allow students greater flexibility in scheduling classes.
• History	Evaluation of majors' capstone course	Systematic analysis of majors' projects has become the basis for setting benchmarks concerning the mastery of skills and knowledge of history graduates and for developing an introductory course for history majors.
• World Languages and Cultures	Placement tests for students in all language classes and DELE test for Spanish language certification.	Placement tests (online and traditional face-to-face) have been developed and improved. In addition, the test that is the basis for Spanish language certification has been reviewed and revised.
Medicine • Health Professions Programs	Clinical experience evaluations, final practical exams, national certification exams, and employer surveys.	All benchmarks for student achievement were met in 2006-07.
Nursing	Course evaluations; NCLEX Program Reports; ATI testing; ATI-Comprehensive; capstone evaluation; EBI-Exit surveys; alumni surveys. .	• Increased use of simulations • Strengthened content in physiology and pharmacology in the sophomore year of the BSN curriculum • Faculty have adjusted course content to reflect areas where students have tested below national benchmarks for ATI • Senior students not meeting the national benchmark are required to remediate to benchmark performance level • Strengthened the preceptor online training by clarifying expectations • Added EBI Masters Survey to measurements used to assess graduates of our masters program. Mapped EBI benchmarking items to BSN and MSN outcomes • Modified BSN and MSN outcomes to address expectations of graduates' employers for more current and relevant practice

School (with Majors)	Source(s) of Evidence	Responsive Improvements
Physical Education and Tourism Management • Department of Physical Education	Graded out-of-class field experiences, in-class laboratories, examinations; alumni surveys; internship placement evaluations; cooperating student teacher evaluations; record of professional / graduate school placements of our recent graduates; undergraduate student research activities (presentations local and nationally); Service-Learning Community site evaluations	• Introduced an 'orientation' to service learning in selected courses; • Expanded service-learning course options; • Spoke with professional organizations about reporting passing rates on National Certifying Exams of our recent graduates, in particular: ACSM, NSCA, PRAXIS; • Department developed 'Working Groups' such as one for ***certifications*** and another for ***course development*** to address perceived gaps in expectations; • Re-tooled some courses; • Introduced selected technologies in specific courses to address deficiencies; • Collaborated with local community agencies to offer more 'real-world' experiences to undergraduates in laboratory portion of course.
• Tourism, Conventions, and Event Management	Capstone course	• Decreased class sizes and enhanced active learning opportunities throughout the curriculum. • Offered more online courses to meet the needs of location-bound students. • Created new courses to meet changing industry needs. Now placement rates of graduates in related jobs have increased. • Began offering courses in an accelerated format (12 weeks) to meet changing student needs. • Help Us Help You Graduate campaign has increased the number of BS graduates to a new record high

School (with Majors)	Source(s) of Evidence	Responsive Improvements
Public and Environmental Affairs	Student performance in gateway and capstone courses; DFW rates and grade distributions; school & campus student surveys; NSSE; DFW rates and grade distributions; retention and graduation data; student, employer and faculty evaluation of internships; focus groups; internal and accreditation reviews; learning outcomes mapped for each course mapped to degree learning outcomes	
• Criminal Justice		• The Criminal Justice and Public Safety majors were updated to emphasize values and ethics. A new course on diversity was added to the curriculum. • J101 instructors revised the course to include mentoring and critical inquiry. Just-in-time teaching was evaluated in one section of J101.
• Environmental Science and Health		• The Environmental Science and Health major was updated to align with accreditation requirements. These changes, which also included revisions to the learning outcomes for the major, were focused on strengthening critical thinking, quantitative skills, and depth of knowledge. • Additional changes include strengthening science requirements (added two semesters of inorganic chemistry and one semester of organic chemistry plus an additional 3 science courses). • GEOG-G338 Geographic Information Systems was added as a requirement to improve quantitative skills. A new integrated course on water and wastes was developed. • Pre-requisites were required for SPEA-H459 and SPEA-H460 (data analysis and laboratory courses) to ensure adequate background for these courses. The laboratory and homework exercises were retooled for H459 and H460.

School (with Majors)	Source(s) of Evidence	Responsive Improvements
• Health Administration		• The Health Administration major was updated to align the major to certification guidelines for undergraduate programs in health administration. These changes, which also included revisions to the learning outcomes for the major, were focused on strengthening quantitative skills and critical thinking, emphasizing diversity and ethical issues, and strengthening intellectual depth. • The curricular changes include: 1) Students without health care experience will take a 1-credit introductory course on health care in the U.S; 2) Expanded the options in personnel management to include SPEA-V443 Managing Workforce Diversity and SPEA-V435 Negotiation and Alternative Dispute Resolution; 3) Added SPEA-V379 Performance Measurement and Program Evaluation as a general management option; 4) Strengthened depth by requiring courses in advanced finance (SPEA-H353) and strategic management (SPEA-H401; 5) Emphasized health care ethics by requiring SPEA-H474; 6) Updated the content of SPEA-H411 to include chronic-care administration and updated the content of the capstone SPEA-H472; 7) Improved experiential access by permitting students with junior status to take the practicum course 8) Improved quantitative performance by requiring BUS-A200 or A201 as the prerequisite for SPEA-H352 (health finance course).

School (with Majors)	Source(s) of Evidence	Responsive Improvements
• Public Affairs		• The learning outcomes for the Public Affairs major were updated to align with required competencies. • Curricular changes to SPEA-V170 (introductory course) and SPEA-V439 (capstone) were made to emphasize critical thinking, written communication and technology skills. • An assessment tool was developed for SPEA-V473.
Science • Psychology	Surveys and student feedback	Data collected from students entering B311 Introductory Laboratory in Psychology revealed a very wide range of competence in the ability to use SPSS to analyze data. B305 Statistics is a prerequisite for B311 and is the course in which data analysis is learned. A set of standardized SPSS modules was created and required in all sections of B305 during the 2006-07 school year to insure that all students who enroll in B311 in the future will enter the course with fundamental competence in SPSS.
Social Work	Focus Groups; Course/Instructor and Student Learning Assessment System; Course Learning Objectives Classification System; student video tapes; practicum final evaluations; exit surveys; service learning surveys; curriculum assessment regarding internationalization of the undergraduate curriculum.	• Developed more online courses and teaching approaches to address different student learning styles. • Intensified the oversight by faculty of some field practicum agencies. • Invested more faculty efforts in service as mentors for undergraduate research projects. • Increased systematic development of service learning opportunities at the freshman, sophomore, and junior levels. • Implemented a course on global issues.

School (with Majors)	Source(s) of Evidence	Responsive Improvements
University College • Summer Bridge Program	End-of-Course Questionnaire; GPA and Retention Reports; student participation statistics; and student profiles.	• Because of positive assessment results, the program was expanded to 450 seats. The Schools of Business, Engineering, Nursing, and University College added sections for summer 2007. The School of Public and Environmental Affairs will participate for the first time, and a special section for international students has been added. Students who are awarded the First Generation Scholarship will be required to participate, and students who are 21st Century Scholars will be offered an additional scholarship award for participation. African American males who are 21st Century Scholars will be eligible for another scholarship award for participating in the bridge program. • Altered math component • Created innovative curricular components

School (with Majors)	Source(s) of Evidence	Responsive Improvements
• First Year Seminars	End-of-Course Questionnaire; GPA and retention data; student participation statistics; and student profiles.	• Program has been expanded due to positive impact on GPAs and retention. • The annual Learning Community Colloquium was dedicated to helping instructional teams prepare a curriculum that will place greater emphasis on multicultural topics in helping students gain an understanding of and appreciation for diversity issues. Instructional teams have been asked to develop an action plan syllabus to demonstrate how they will cover the topic throughout the first semester. • Enrollment requirements for on-line learning communities have been changed. Half of fall 2007 on-line sections will be reserved for late enrollees (as in previous semesters), but the other half will be open this fall to students who might benefit most from an on-line learning community experience. Two UCOL sections have also been reserved for science and nursing majors who are unable to take Windows on Science or the Nursing learning community sections because those sections are filled by the time they enroll. • University College expanded its Themed Learning Community (TLC) sections. In fall 2007, three new TLCs will be offered including African America Perspectives, Crime in America, and Health and Wellness.
• Critical Inquiry	Course evaluations; grade data; and instructor perceptions.	• Continued to clarify learning objectives and revised end-of-course questionnaires to reflect the changes. • Resources will be devoted to ensuring that CI faculty members are engaged with each other through a Community of Practice. • Increased training and support for all faculty.
• Orientation	New Student Exit Survey	• The format of the Transfer Orientation was revised. Presentation content and flow was modified for each session of the program to meet the needs of transfer students. • Continued focus on EXPLORE THE ROAR (campus tour) to create an engaging and interactive tour- while keeping in mind the important learning outcomes of the FLASH program (First year students Learn & Achieve Socially Here).

School (with Majors)	Source(s) of Evidence	Responsive Improvements
• Advising	Web-based survey to random sample of UC students; pre-post questionnaire administered in first-year seminars; Web-based survey to random sample of students recently certified to schools; UC advisors survey	• Intentionally designed learning experiences for students in individual advising sessions, group advising, and the learning communities that focus on stated learning outcomes. • Tied advisor training and development to learning outcomes. • Clearly articulated learning outcomes to students. • Continued efforts to integrate academic and career planning. Developed programs/advisors to help students not admitted to competitive fields and to assist with alternate career plans. • Developed systems to encourage, mentor, and reward staff for scholarship in the field of advising. • Committees formed to address: Assignment of advisors, meeting the needs of non-traditional students, New Student Orientation advising, Advisor development (inquiry and scholarship), Advisor training, and the health advising network.

School (with Majors)	Source(s) of Evidence	Responsive Improvements
• Learning Center	Tutoring Survey; graduating Student Mentors Website; biology mentors and instructors surveys and interviews; end of semester grade reports.	• Students reported not being able to connect with a tutor due to their schedules not matching Learning Center hours or their ability to come to campus. As a response to the data collected, the Learning Center has implemented a website, which students can access 24 hours a day, which lists students who are willing to tutor in a variety of subject areas. • A website has been created to connect former students in the mentoring community with their peers to share contact information, accomplishments, family news and photo galleries. Additionally, former mentors will be kept up-to-date on the current activities in the many programs that utilize mentors and opportunities to join those organizations in coming events. • As a means of keeping Biology mentors and instructors connected, the Learning Center has collaborated with Biology instructors to institute the Biology Mentor Roundtables (BMR). These meetings allow mentors in Biology to meet with instructors in BIOL N212, N214, N217, N261, K101, and K103 to discuss different ways to connect the content for their course to their students in a way that is augmented by models, animations, charts and collaborative learning techniques. • The DFW rate for the PSY B104 course has not changed much in the six years the Structured Learning Assistance program has been in collaboration with the Psychology department. As a way to address students who are struggling with the Psychology material, Learning Center staff are working closely with Psychology instructors to make adjustments in mentoring to address the needs of lower-achieving students. The main focus of the mentoring sessions will be text analysis, homework completion, goal setting, attendance and participation, and exam preparation.

School (with Majors)	Source(s) of Evidence	Responsive Improvements
• Math Assistance Center	Student Surveys Summary Report	• Continued to invest in more modules (including software-based modules) that students may use (with guidance from tutors) to achieve needed improvements in specific topical areas. • Media Online Math Tutorials and Project/Online-Homework Software Assistance created (the Online Help and Media OnLine provides links to the lectures for Pre-Algebra, 001, 110, and 111). • The demand for assistance in M118 is nearly twice the demand for any other course that the Center serves. In response to that, the Center now schedules 1-2 M118 tutors at all hours of operation in addition to offering at least 30 hours of SI assistance Monday through Thursday. • Improvements have been made to both the tutor and mentor interview and evaluation processes to help insure that students receive quality help from their peers. • In response to a desire for exam jams that are more reflective of finals and overall course content, Center staff met with course coordinators to discuss, select, and otbain approval of Exam Jam content.
Columbus • Division of Business	Business strategy globalization game in capstone; new reflection assignment at the end of the internship	Expanded the number of students taking internships; the final program reflection now requires students to address their learning, curriculum content, PULs, and other aspects of the academic experience.
• Division of Education	National PRAXIS exams; locally-developed performance assessments based on national standards (3 program benchmarks); new performance assessments; student, employer, field placement teacher; and advisory board surveys	Changed field experience expectations, including separate course syllabi for practica that link PULs and national standards to performance assessments in the field experience; implemented student ePortfolio to evaluate content knowledge.

School (with Majors)	Source(s) of Evidence	Responsive Improvements
• Division of Nursing	National licensure exam (NCLEX); clinical performance practicum / capstone evaluation; course evaluations; ATI assessments; ATI NCLEX blueprint predictor; surveys and focus groups.	Students will take practice and proctored ATI assessments with a benchmark of 60%. Students will remediate until they reach 90% if the 60% benchmark is not met.
• Division of Science	1. Assignments, lab reports, project reports 2. Exams, including common finals in some areas 3. Lab practical exams 4. Research proposals and reports, including capstone 5. Presentations (individual and group) 6. State board exams 7. Self-evaluation and supervisor evaluation of practicum experiences 8. Midterm and end of semester course evaluations 9. Employer feedback 10. Alumni feedback	Some psychology courses built in additional time for discussing controversial issues as a basis for critical thinking papers. Other psychology courses used interactive software to create electronic case studies.