

**Ensuring Student Attainment of the Principles of Undergraduate Learning  
~ Information for Department Chairs and Faculty ~**

**BACKGROUND AND PURPOSE**

IUPUI's Principles of Undergraduate Learning (PULs) have an almost 20-year history, dating from discussions about general education that began in 1990. The PULs were formally adopted by Faculty Council in 1998 and revised and reaffirmed in 2007. Taken together, the PULs summarize the general education outcomes and abilities we want all undergraduate students to have opportunities to achieve, regardless of major. (For a listing of the PULs, with definitions, consult <http://www.iupui.edu/~fcouncil/documents/PULs.pdf>).

In the 1990s, an outcomes-based approach to general education was ahead of its time; most institutions defined general education as a set of course or distribution requirements. Today, the public expects higher education institutions to articulate and demonstrate what students gain from higher education—i.e., learning outcomes. Accrediting bodies also now expect programs and institutions to present evidence that students are achieving key college-level abilities and skills. When the Higher Learning Commission of the North Central Association conducts its ten-year reaccreditation review of IUPUI in 2012, we must show the Commission team that our students are developing the knowledge, abilities, and attributes embodied in the PULs. Failure to achieve reaccreditation has serious consequences: IUPUI could lose access to all federal funding, including student aid and research support.

After almost a year of campus-wide discussion, the representative committee that is guiding the plans for the 2012 reaccreditation review (the 2012 Committee) has developed a process, detailed in the attachment that follows this one, for gathering and presenting evidence of student learning of the PULs. The faculty of each undergraduate program should determine whether it makes most sense for these activities to take place at the school level, the department level, or at the track or concentration level.

Data on student outcomes will **not** be used to evaluate individual faculty members. The purpose of gathering these data is to gauge program and institutional effectiveness and to suggest ways that faculty can work together to identify areas where academic programs have particular strengths or need development and improvement.

**PRIOR WORK**

In spring 2009, faculty in every undergraduate department identified for each course one, two, or three PULs emphasized through class activities and assignments. Each PUL was assigned a major, moderate, or minor emphasis (see the review of this process in the next attachment).

Drawing on this information, staff in the Offices of the Registrar and Information Management and Institutional Research (IMIR) have created a database that links courses with PULs emphasized. With this information, faculty members and advisors can use the matrix at <http://www.planning.iupui.edu/pul/matrix> to enter courses in an academic program or an individual student's plan of study and see immediately which PULs are addressed. That is, by

simply entering course names and numbers using abbreviations such as ENG-W131 in this matrix, faculty and advisors can do the following:

- a. Study the PUL coverage offered by courses in a single department.
- b. Review the PUL coverage in any combination of courses to determine whether typical course-taking patterns provide students with sufficient opportunities to learn the skills associated with each of the PULs. That is, faculty can use the matrix to identify parts of the curriculum where emphasis on particular PULs might be strengthened, especially if outcome data indicate that student attainment in any of the PUL areas is not satisfactory.
- c. Help students develop four-year plans that provide opportunities both within and outside the major department or program to practice and master the complex, higher-order intellectual skills represented by the PULs.

## WHAT NEEDS TO BE DONE

The 2012 Committee is beginning to collect evidence of the PULs' integration in the curriculum and students' achievement of them. Since the faculty has defined the PULs as the key common outcomes of an undergraduate education at IUPUI, this evidence will comprise an important component of our reaccreditation self-study. If the data collection and analyses are to yield meaningful results that speak to the implementation and sustainability of the PULs as the foundation for the IUPUI undergraduate experience, several tasks must be performed by departments and by individual faculty members. The most important tasks include **developing a department- or program-wide plan to evaluate student attainment of the PULs and, over a span of five years, rating students' performance on the PULs emphasized in at least one section of each course**. Detailed instructions for recording and submitting plans and ratings to IMIR appear in the attachment that follows this one. An application for IRB exempt status for this initiative has been prepared.

## OPTIONAL – MINUTE PAPER FOR STUDENTS

For their own personal use, faculty members may wish to ask students about their experiences with the PULs in a course. Some suggested questions for students may be viewed at <http://nca.iupui.edu>. If using these items, faculty members should **select only the questions** designed for the **one, two, or three PULs emphasized in their course**. **They also may develop their own items to use instead of, or in addition to, those listed at this site**. This exercise is called a "minute paper" because students will be able to answer the questions in just a minute or so of class time. Student responses may give faculty members some insights that can be used to develop alternative approaches to teaching and evaluating student learning in the course.

## NEXT STEPS

Ratings of students' attainment of the PULs will be stored on secure servers in the Office of Information Management and Institutional Research. While a copy of the ratings with student identifiers will be archived in case changes need to be made, the ratings maintained on IMIR servers will not contain student, faculty, or section identifiers.

IMIR staff will provide a summary report of faculty ratings of students' achievement of each PUL in 400-level courses. These campus-wide means and percentages will supply evidence for

accreditors and other external stakeholders of students' attainment of the PULs as they near graduation. Similar summary reports for PUL achievement in 100-, 200-, and 300-level courses will provide evidence for use at the school level as faculty seek the most effective pedagogy and curriculum for advancing student achievement of the PULs. Only campus- and school-level reports will be developed. No results that can be linked to a particular class, section, faculty member, or student will be compiled.

These steps will produce evidence of student achievement of the PULs that can be used as part of IUPUI's North Central reaccreditation self-study. They will be most meaningful if faculty members come together to study the resulting outcomes data to determine areas where pedagogy or curriculum need adjustment. These data might be examined in combination with other available information on student learning—results of licensure or other achievement examinations, results of campus and external surveys administered to students or graduates, and other available data. Discussion and analysis of outcomes data can serve as rich learning opportunities for faculty members. Faculty may wish to include students in these discussions as well.

We hope that this process will lead schools, departments, and programs to identify and implement changes meant to strengthen student learning of PUL-related knowledge and skills. These changes might include course redesign, curriculum revision, or modifications to advising, as well as adjustments in requirements or electives outside the major. Through an ongoing evaluation and improvement cycle, program faculty can determine whether the procedures explained here actually help to strengthen student learning. The annual report that each school submits to the Program Review and Assessment Committee (PRAC) can be used to document improvements undertaken and the impact of those improvements. These reports will provide another source of evidence that IUPUI has institutionalized systematic processes of evaluation and improvement. Most important, the entire procedure—if it works as intended—will lead to real, identifiable gains in student achievement.

Attachment that follows: Instructions for Evaluating Student Attainment of the PULs

## INSTRUCTIONS FOR EVALUATING STUDENT ATTAINMENT OF THE PULs

IUPUI has begun a new initiative to evaluate undergraduate student attainment of the abilities, skills, and attributes embodied in the Principles of Undergraduate Learning (PULs). As a first step, in Spring 2009, faculty responsible for every undergraduate program at IUPUI identified for each course one, two, or three PULs addressed in class activities and assignments. The following scale was used to indicate the degree of emphasis given to each PUL identified:

- 3** indicates a **major** emphasis: *This PUL is prominent in at least one course objective; it is a **focus** of the course. Student learning of this PUL is assessed via at least one major assignment.*
- 2** indicates a **moderate** emphasis: *The PUL is **explicitly** emphasized in the course. It is prominent in at least one course assignment and is assessed via that assignment.*
- 1** indicates a **minor** emphasis: *This PUL is identified in one or more assignments and is **implicitly** emphasized in the course.*

Staff in the Offices of the Registrar and Information Management and Institutional Research (IMIR) have drawn on this information to create a database that links courses with the PULs emphasized. With this information, faculty members and advisors can use the matrix at <http://www.planning.iupui.edu/pul/matrix/> to enter abbreviated course titles for an academic program, or an individual student's plan of study, and see immediately which PULs are addressed.

Now, programs and departments need to carry out two additional steps in order to develop campus-wide data on student learning related to the PULs:

Step 1. Develop a program or department schedule for evaluating student attainment of the skills and knowledge embodied in the PULs.

Faculty in each program or department must develop a **schedule for evaluating and recording students' PUL learning in at least one section of each of the department's/program's courses over the next five years. Only PULs given major or moderate emphasis** (i.e., scored as **3** or **2** in the course matrix) need to be included in the schedule.

- First, program/department members should review the matrix to verify that all courses offered are listed and that PULs are assigned for each course.
  - To review the matrix, go to <http://www.planning.iupui.edu/pul/matrix/>.
  - Click the "IU Login" button and log in using the CAS system.
  - Click on the link for "PUL Matrix by Department/Program."
  - Select the appropriate department from the drop-down menu.If PULs are not assigned for a course, confer with colleagues, assign the appropriate one, two, or three PUL(s) for that course and ask your school scheduling officer to send this information to the Office of the Registrar.

- Next, **select and record a semester** for evaluating student attainment of the PUL-related knowledge and skills in each course offered by the department/program. ***The schedule for evaluating students' attainment of the PULs in each course should be submitted using the matrix web form (described below) by October 30, 2009.***
  - In the "semester" column on the left, indicate in which semester (e.g., Spring 2010, Summer 2010, Fall 2010, etc. through Fall 2014) student attainment of the PULs for that course will be evaluated.
  - If PULs for a course 'vary by class,' the course may be eliminated from the schedule for evaluating student attainment.
  - Save the schedule by clicking "Save" so that you may view it later and edit.
  - Click "Submit" to send your schedule to the IMIR site for review by your dean, IMIR staff, and others.
  - Upon submission, you will receive an email message with a link to a downloadable PDF copy of your matrix. (Note: if you wish to print your matrix from the Web site, set the page orientation to Landscape for best results. The PDF version you receive upon submission will pre-set to print in Landscape orientation.)

Step 2. Faculty teaching sections selected for student evaluation in a given semester should record a level of PUL attainment for each student enrolled in that course section.

- Review the PULs given major or moderate emphasis in the course by going to <http://www.planning.iupui.edu/pul/matrix> and following the log-in directions above.
- Evaluate each student's class performance on each of the relevant PULs. Please use the following rating scale:
  - 3 (VE) = Very Effective
  - 2 (E) = Effective
  - 1 (SE) = Somewhat Effective
  - 0 (NE) = Not Effective
- In assigning the ratings, use evidence from a single assignment or from multiple activities (test items, oral presentations, individual and group projects) designed to give students opportunities to practice and make progress in learning the knowledge and skills associated with the particular PUL emphasized.
- To determine ratings, you may wish to use or adapt one of the PUL rubrics found at <http://nca.iupui.edu>.
- UITS and IUPUI campus personnel are developing means to record these ratings via Oncourse and the Student Information System. Additional information will be sent when this capability becomes available. If you are field-testing this procedure in Fall 2009, contact Amol Patki at [apatki@iupui.edu](mailto:apatki@iupui.edu) or 4-5810 to obtain a format for recording your student evaluations using the scale described above.
- Although student names/ID numbers will be used to simplify the work of recording their levels of learning, this identifying information will not be included in any reports prepared for the campus or the Higher Learning Commission.

Dear Colleagues,

The instructions are out!!! Thank you so much for all of your good advice over the past year—the instructions are much better as a result of your efforts.

Please listen as colleagues in the schools react when they receive these materials, and be thinking about additional resources that we can provide—workshops, rubrics, journal articles, etc.

Mary and I look forward to hearing from you in this connection when we have our next committee meeting at 10:00 a.m. next Monday, September 21 in AO 103. Thanks again—

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**From:** Banta, Trudy W.  
**Sent:** Thursday, September 17, 2009 5:52 PM  
**To:**  
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**Subject:** Ensuring Student Attainment of the PULs

As we prepare for reaccreditation by the Higher Learning Commission of the North Central Association in 2012, we must provide evidence that our undergraduates are developing the knowledge, skills, and abilities embodied in our Principles of Undergraduate Learning (see <http://www.iupui.edu/~fcouncil/documents/PULs.pdf>). Instructions for evaluating student learning in a manner that will enable us to assemble reports at the school and campus levels have been developed by members of the 2012 Committee over the past year and vetted twice with Associate Deans for Academic Affairs, as well as with a number of other campus groups. Now these instructions are attached in two documents: The first provides background and an overview, and the second contains detailed instructions.

Please review the two attachments and forward them to department/program chairs, noting the **October 30, 2009** due date for submitting a 5-year schedule for evaluating and recording students' attainment of the PULs in at least one section of every undergraduate course offered by faculty in each department/program in your school. The Department/Program Matrix at <http://www.planning.iupui.edu/pul/matrix> (using the link at the bottom of the page, log in with your IU username and password) has been designed to facilitate this process.

The Center on Teaching and Learning will offer 10 workshops on the topics of teaching and evaluating student learning of the skills and knowledge associated with the PULs. The full schedule of these workshops may be found at the Web site we have created for the North Central review: <http://nca.iupui.edu> . The sample rubrics and other resources currently found at this site will increase in number as IUPUI faculty share their own examples over the coming months.

If you have questions about the PUL matrices found at <http://www.planning.iupui.edu/pul/matrix>, please contact Amol Patki ([apatki@iupui.edu](mailto:apatki@iupui.edu)). Other questions about the process may be directed to me at [tbanta@iupui.edu](mailto:tbanta@iupui.edu).

Thank you so much for your assistance.

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