

**ASSESSMENT OF IUP LIBERAL STUDIES PROGRAM
For Academic Year 2007-08**

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TABLE OF CONTENTS

Introduction	2
Interpreting the findings: Comments on method	2
Executive summary of assessment findings	4
Detailed report of findings:	
Student perspectives on overall learning experience	4
Expected Student Learning Outcome 1: Informed Learner	6
Expected Student Learning Outcome 2: Empowered Learner	8
Expected Student Learning Outcome 3: Responsible Learner	12
Appendix A: Methods used in the local assessment	14
Appendix B: 2007 Mean Scores for Selected NSSE Elements	18
Appendix C: Local assessment - Frequency distributions by indicator and level of achievement	21
Appendix D: CLA – Seniors’ scores, Spring 2008	22

INTRODUCTION

Early in Spring 2008, the University Chairs requested an assessment of the Student Learning Outcomes of the current liberal studies program, and the provost's office took responsibility for providing the resources for conducting the assessment, which was completed in June 2008.

The chairs' request stemmed from a desire to use assessment to inform the Liberal Studies Revision, thus the assessment plan was designed with that objective in mind. Given that, the focus of the assessment should be understood to be the liberal studies program itself, and the skills and capacities with which IUP students graduate specifically and only related to general education curriculum. Thus this assessment should be viewed as one component in a student learning outcomes assessment, complementing but not replacing assessment of the major. And for this reason, no effort was made to compare how students from one department or college with another. Rather, the focus was simply on presenting a credible and nuanced understanding of how IUP students experience the liberal studies curriculum and what learning outcomes the program achieves.

INTERPRETING THE FINDINGS: COMMENTS ON METHODS

The following points provide some background for understanding the findings in this report.

Measures. Assessment methods can be either direct (assessment of students' actual work) or indirect (student report of their learning experience.) Measures can also be standardized or custom designed for internal purposes.

In this study, three measures were used. Two are direct measures of actual student learning: one, a standardized exam, the Collegiate Learning Assessment (CLA), and the other, a customized rubric for analysis of the extent to which student work reflects IUP's Expected Student Learning Outcomes. The ratings in both instances are based on actual student performance. One indirect, standardized measure was also used – the National Survey of Student Engagement. This survey asked students a number of questions about their actual experience at IUP. Questions related to the academic experience were extracted and used in this report.

Sampling. All three of these measures were administered using sampling techniques rather than administered to the whole population of students. When sampling is used, tests or surveys are given to small groups of students using methods that permit use of statistics to make inferences about a larger population.

One way of assessing the validity of these inferences is to examine the degree to which a sample truly represents the population. Both the CLA and the NSSE collected demographic data that allows us to compare the sample to the population. It was not possible to collect such data on for the local assessment. To compensate, specific steps were carefully taken to draw a random sample of students, thus methodologically doing all that was possible to maximize a

representative sample. These steps are outlined in a report on the methods used in the local study (Appendix A.)

Comparing IUP performance to other institutions. Two of these measures (NSSE and CLA) are administered in ways that provided information on how IUP students performed compared with other institutions that administered these exams. For ease in assessing comparisons across institutions, findings from the NSSE and the CLA are presented as mean, or average, scores.

- Among other procedures, the NSSE creates three comparison groups for the individual items. These groups are: 1) other regional institutions like IUP in the same geographic area, referred to in the report as “selected peers,” 2) institutions in the same Carnegie classification from across the nation, referred to here as “Carnegie peers,” and 3) all institutions that took part in the NSSE that same year.¹ The differences in scores are assessed in two ways – on whether they are statistically significant (a difference that is larger than what would be expected by chance alone) and also on the effect size (the practical significance of the difference in the mean.) The statistical significance of the mean is reported in the table located in appendix A. The effect is fairly small in all instances, with the exception of a few, noted on the table in the appendices.
- CLA provides comparison through weighting the data to adjust for differences in SAT scores, then comparing all results against the average of scores for all institutions. An institution’s reports are reported as being below, at, or above that average.

Customized local assessment. The standardized measures looked at a common set of learning outcomes that are assumed to be goals for all institutions. However the local assessment differs in that it seeks to determine the extent to which students taking the current liberal studies program are achieving the learning outcomes approved by Senate in 2005. Thus this assessment is targeted on various elements of these Expected Student Learning Outcomes.

To provide a richer understanding of student competencies, the local assessment presents findings by frequency distribution – the percentage of students who were rated as having demonstrated a particular level of skill for a particular area. This is to permit faculty a detailed understanding of exactly how those skills or capacities were defined, as it relates to our Expected Student Learning Outcomes.

Multiple methods. Finally, these three measures might best be understood as three different “lenses” that were used to observe and describe the general education capacities students develop at IUP. They are best used in combination to obtain a richer, fuller understanding of how IUP students are performing, and locate that understanding against the field of institutions nationally. At the same time, though using different lenses, the findings from the three measures were largely consistent.

Tables presenting the findings discussed below are located at the end of this document: NSSE (Appendix B), Local Assessment (Appendix C) and CLA (Appendix D).

¹ A list of the institutions that comprise the Selected Peer Group and the Carnegie Peer group are available from the Provost’s Office.

EXECUTIVE SUMMARY OF FINDINGS

Overall, the findings suggest that IUP is consistent with other institutions with regards to student learning outcomes in disciplinary training, general education, written communication and critical thinking skills. The findings also indicate that the freshman year educational experience is comparatively weaker in numerous areas, including opportunities for service learning or cohort-based learning (sharing two or more classes); synthesis of ideas across disciplines and sources. Also, overall, students at IUP report that course expectations regarding the length of papers and the length of time required to complete problem sets is lighter than that reported by students at other university.

With regards to IUP's expected Student Learning Outcomes: assessment regarding the first outcome of students as *Informed Learners* indicate that IUP is providing solid training in the disciplines as well as opportunities to integrate this knowledge across disciplines and in the practical application. However, while these opportunities for application do exist, the findings also suggest that students may be weaker in integrating ideas and concepts with that application. Students may benefit from LBST program revision that targets actively linking theory with their practice.

Assessment related to the second Expected Student Learning Outcome of *Empowered Learners* suggests that IUP is producing learning outcomes in the areas of written communication, critical thinking and analysis that are consistent with other institutions, particularly by the senior year. An area of weakness is freshman programming that fosters synthesis of ideas and sources.

The findings of related to the third Expected Student Learning Outcome of *Responsible Learners* in particular suggest that while opportunities do exist for students to engage in and think about issues of community involvement and social justice within a diverse society, students may be relatively weak in this area overall. Areas of weakness include: attribution of sources in writing, application of understandings about diversity in coursework, service learning, and ethical development.

STUDENT PERSPECTIVES ON THE OVERALL LEARNING EXPERIENCE

A comparison of students' reports about their overall educational experience suggest that IUP seniors found their educational experience to be equivalent to and, in some regards, superior to students' reports at comparable regional public universities, to its Carnegie peers and to all institutions that implemented this survey. For example, on the question about how their IUP experience contributed to acquiring job or work-related knowledge or skills (Item 11b) the average score (3.11) among IUP seniors

- was *quite significantly higher* than other regional public universities (2.91), and *consistent* with the average for the Carnegie peers and all institutions that took this survey.

IUP seniors' reports of their experience of the general education program and its contribution to their knowledge, skills and personal development (Item 11a)

- was **equivalent** to that reported in all other comparison groups

This would suggest that seniors report particularly positive experiences in the major, while rating their general education as favorably as students at other institutions.

In some critical areas, however, IUP student reports are less favorable those at other institutions. Regarding the experience for freshman:

- On the question of whether they had participated in a learning community or some other formal program where groups of students take two or more classes together (Item 7c), IUP freshman's average score (.13) was **significantly lower** than either peer institutions (.19) or Carnegie Peers (.19), though **statistically equivalent** with all institutions that administered the NSSE (.17).
- On the question of whether they have had some kind of field-based educational experience in their first year (Item 7a), IUP freshman's average score (.04) was **significantly lower** than all others groups (selected peers .09; Carnegie peers .08; all institutions completing the NSSE .07) where the mean is the proportion of students who have completed a practicum, internship, field experience, co-op experience or clinical assignment. Similarly, on a question about whether they had engaged in community service or volunteer work (Item 7b), the percentage of IUP freshman engaged in such experiences (28%) was **significantly lower** than Carnegie peers (38%) and all institutions administering the NSSE (38%) and statistically **equivalent** to selected peer institutions (31%).

IUP students also report that the workload may be less demanding than that required at other institutions. Specifically:

Question 3c-e. Numbers of written papers or reports that are:	
• 20 pages or more	IUP freshman mean score is equivalent to other comparison groups. IUP Seniors report they do significantly fewer papers of this length than students at selected peer institutions, but equivalent to those at Carnegie peer and all institutions.
• Between 5 and 19 pages	IUP's freshman report they do quite significantly fewer papers of this length than students in either regional peer institutions or in the Carnegie peers. IUP Seniors' average is equivalent to all comparison groups.
• Fewer than 5 pages	IUP's freshman reports are equivalent to all comparison groups. IUP Seniors' mean score suggests they do quite significantly more papers of this length than students in either regional peer institutions or in the Carnegie peers.

Question 41-b. Length of time involved doing problem sets:	
<ul style="list-style-type: none"> Number of problem sets that take you more than an hour to complete 	IUP freshman's reports are equivalent to those of all comparison groups. IUP seniors' reports are equivalent to students at selected peer institutions, but significantly less than students at Carnegie peers or at all institutions that administered the NSSE.
<ul style="list-style-type: none"> Number of problem sets that take you less than an hour to complete 	IUP freshman's reports are significantly higher those of students at selected peer institutions, but consistent with those at Carnegie peers and all institutions that administered this survey. IUP seniors' reports are quite significantly higher than students at all comparison groups.

STUDENT LEARNING OUTCOME 1

Informed Learners understand nature and society through forms of inquiry fundamental to the sciences, the humanities, and the arts. Learners are informed by knowledge and ways of knowing that extend beyond core concepts enabling them to link theory and practice.

Informed Learners demonstrate knowledge and understanding of:

- the ways of modeling the natural, social and technical worlds
- the aesthetic facets of human experience
- the past and present from historical, philosophical and social perspectives
- the human imagination, expression and traditions of many cultures
- the interrelationships within and across cultures and global communities
- the interrelationships within and across disciplines

Two sources of information provide insights into how IUP students are doing regarding this outcome. These sources are the NSSE (an indirect measure – student report of the experience), and the local direct assessment.

RESULTS FROM THE NSSE

Two items from the NSSE are relevant for this Student Learning Outcome. One of these questions pertains to opportunities to practice, which appears to be a strength at IUP, according to students' reports on the NSSE. Specifically, when asked if a student has done a practicum, internship, field experience, co-op experience or clinical assignment (Item 7a), the proportion of IUP seniors who have completed some kind of field-based educational experience was 57%, which is **consistent** with students in other regional institutions (56%) and from all institutions

participating in the NSSE (53%). IUP's experience was **significantly stronger** than the Carnegie peers, where 51% of the students participate in such programs, on average. However IUP students' experience with using theory linked to that practice is less evident. One question asked students to speak to the extent to which their experience at IUP contributed to their knowledge, skills and personal development in the area of solving complex real-world problems (Item 11m). IUP freshman reported experience that was **consistent** with all three comparison groups. However IUP seniors mean score (2.60) was **significantly lower** than the average s from the Carnegie peers (2.73) and all NSSE institutions (2.74).

Another question provides information about the last bullet in Outcome 1. It asked students to identify to what extent they were asked to put together ideas or concepts from different courses when completing assignments or during class discussions (Item 1i, with responses ranging from 0=never to 4=very often). Freshman scores were consistent with those of all the comparison groups. The average of the answers reported by IUP seniors was 2.96, which was **significantly higher** than selected peer institutions (2.84), and **consistent** with the mean scores from the Carnegie institutions (2.93) and from all institutions taking the exam (2.90).

RESULTS FROM THE LOCAL ASSESSMENT

To complement the findings from the NSSE, IUP also conducted a direct assessment of student performance in regards to Student Learning Outcome 1. Students' written work was assessed using the criteria located in section 1 of the rubrics and data on the distribution of student performance at each level are available in appendix B. In summary, the findings suggest:

- Forms of inquiry and core concepts of the Natural and Social Sciences. Regarding forms of inquiry, the assessment rated student work in terms of demonstrated capacities to access and evaluate appropriate and well-selected information resources, to independently apply sound scientific method; to show evidence of extending findings beyond the scope of the project and to accurately critique the strengths and limitations of the project. In terms of core concepts, student work was rated in terms of demonstrated understanding of scientific concepts and principles, transfer of scientific reasoning in other contexts, use of complex modeling.

Based on these criteria, approximately half of IUP seniors sampled demonstrated skills at either the Proficient or Advanced level, with another 42% demonstrating the ability to state and appropriately use scientific concepts at a basic level, interpret a given model correctly and understand basic quantitative information.

- Forms of inquiry and core concepts of the Humanities. Students' work was assessed in terms of the degree of understanding about ideas, thinkers, or frameworks key to the topic explored, and for the capacity to draw from multiple disciplines to explain natural, social, or arts phenomena. Work was also assessed for evidence of the capacity to utilize relevant sources, with inferences substantiated through close analysis, accurately described and integrated appropriately. *Half of the students sampled met these standards at the proficient or advanced level, and another 40% demonstrated a basic understanding, with the ability to utilize if not fully integrate multiple sources.*

- Arts are defined here as the capacity to appreciate the aesthetic experience of the arts, interpret art forms, and recognize their role within the context of a culture. Approximately 64% of the students sampled demonstrated either proficiency or advanced capacities in this area. Another 25% of the students sampled performed at a level of accurately reporting others' interpretations or assessments of selected art forms
- Application and Synthesis of content areas. *Rankings of the indicator "Application & Synthesis" suggest that approximately half of those sampled performed at either "Proficient" or "Advanced" level as defined by the assessment team.* Criteria is based on the degree to which the student draws on multiple disciplinary perspectives, content, or modes of inquiry; explains links or relationships between contexts, and utilizes theory to understand practice, and/or demonstrates the implications of practice for refining theory. *Another 38% of those sampled were able to reference more than one disciplinary perspective, content or mode of inquiry, or the existence of a larger context or the relevant theory but without full integration.* Further, approximately one seventh of IUP students sampled were ranked as "Undeveloped" by the standards developed for this assessment. In addition, the team's qualitative impression was that the papers were more descriptive than applied and synthesized, and recommend this capacity be targeted for attention in the program revision.

SUMMARY

In summary, the findings suggest that IUP is providing solid training in the disciplines as well as opportunities to integrate this knowledge across disciplines and in the practical application. However, while these opportunities for application do exist, the findings also suggest that students are weaker in integrating ideas and concepts with that application. Students may benefit from program revision that targets actively linking theory with their practice.

STUDENT LEARNING OUTCOME 2

Empowered Learners are critical thinkers who demonstrate intellectual agility and creativity and the ability to manage or create change. They are able to derive meaning from experience and observation. They communicate well in diverse settings and employ various strategies to solve problems. They are empowered through mastery of intellectual and practical skills. Empowered Learners demonstrate:

- effective oral and written communication abilities
- ease with textual, visual and electronically-mediated literacies
- problem solving skills using a variety of methods and tools
- information literacy skills including the ability to access, evaluate, interpret and use information from a variety of sources
- the ability to transform information into knowledge and knowledge into judgment and action
- the ability to work within complex systems and with diverse groups
- critical thinking skills including analysis, application and evaluation
- reflective thinking and the ability to synthesize information and ideas

Three sources of information offer information on how IUP students are doing regarding outcome 2. These sources are: the NSSE (an indirect measure – student report of the experience); the local assessment (direct measure of student learning), and the Collegiate Learning Assessment (a standardized, direct measure of student learning).

RESULTS FROM THE NSSE

Several items from the NSSE provide insight into students' experience relevant to this particular expected student learning outcome. These items are organized below in terms of how they inform a particular bullet in this expected outcome.

Two questions relate to the first bullet, which addresses oral and written communications. The first question asked students “To what extent has your experience at this institution contributed to your knowledge & skills . . . in writing clearly and effectively?” (Item 11c, with responses ranging from 1=very little to 4=very much). The average score for IUP seniors was 3.08, which was statistically **equivalent to** the mean scores of each of the peer comparison groups (Selected peer, 3.04; Carnegie peers, 3.09; and all institutions that administered the survey that year, 3.06). The second question was similar, but referred to oral communication: “To what extent has your experience at this institution contributed to your knowledge & skills . . . in speaking clearly and effectively?” (Item 11d, with responses ranging from 1=very little to 4=very much). Here as well, the average score (2.94) for IUP senior self-report was statistically **consistent with** peer institutions (2.91), Carnegie peers (2.96) and all institutions (2.95).

One question referred to the fourth bullet in outcome 2, information literacy skills, asking to what degree coursework emphasized making judgments about the value of information, arguments or methods (Item 2d, with responses ranging from 1=very little to 4=very much). In response to this question, the average score for IUP seniors was 3.02, **consistent with** the mean for each comparison group (2.94, 2.99 and 2.96 respectively).

One question from the NSSE provided insight into the fifth bullet, which is on the topic of the transforming knowledge into action. Specifically, students were asked to describe their experience with coursework emphasizing the application of theory or concepts to practical problems or new situations (Item 2e, with responses ranging from 1=very little to 4=very much). On this item, the average of IUP seniors' responses was (3.22) **consistent with** the mean for each comparison group (3.14, 3.19 and 3.18 respectively).

The NSSE had just one question that addressed the sixth bullet which speaks to working with diverse groups. This question asked: “To what extent has your experience at this institution contributed to your knowledge & skills . . . in working effectively with others?” (Item 11h, with responses ranging from 1=very little to 4=very much). On this question, IUP's average score (3.09) was statistically **equivalent to** selected peer institutions (3.12), Carnegie peers (3.15) and all institutions (3.12).

Three items on the NSSE relate to the seventh bullet for this student learning outcome, the topic of critical thinking skills. The first question asked students to describe the extent to which their coursework emphasized analyzing the basic elements of an idea, experience or theory (Item 2b,

with responses ranging from 1=very little to 4=very much). On this question, responses from both IUP freshman and seniors were **consistent with** each matching group. The NSSE also directed students to address their experience with critical thinking in terms of evaluating their own ideas. This item asked “how often have you... examined the strengths and weaknesses of your own views on a topic or issue?” (Item 6d, with responses ranging from 1=never to 4=very often.) On this question, again the mean scores of both IUP freshman and seniors were statistically **equivalent to** all three comparison groups. And finally, students were also more broadly asked “To what extent has your experience at this institution contributed to your knowledge & skills . . . in thinking critically and analytically?” (Item 11e, with responses ranging from 1=very little to 4=very much). IUP freshman and seniors again reported averaged responses (3.21 and 3.28 respectively) that were **equivalent to** the other comparison groups.

Finally, three items addressed the last bullet for this outcome, on reflective thinking and synthesis. One question from the NSSE asked students to report on the extent to which, during the current year, they had worked on a paper or project that required integrating ideas or information from various sources (Item 1d, with responses ranging from 1=never to 4=very often). IUP freshman mean (2.90) **lagged significantly below** the mean of all peer groups (3.03 mean for selected peers and all NSSE institutions) but **quite significantly below the** Carnegie peers (3.12). However, IUP seniors’ average score (3.36) was **significantly above** the mean of selected peers (3.25), and **consistent with** the mean of Carnegie peers (3.35) and all institutions that administered this survey (3.29). Another question asked about the extent to which students found coursework to emphasize synthesizing and organizing ideas, information or experiences (Item 2c, with score ranging from 1=very little to 4=very much). The freshman mean score (2.84) **consistent** with the mean of the comparison groups. The average response for IUP seniors (3.12) was **significantly above** selected peers (3.02), and equivalent to Carnegie peers (3.04) and all institutions (3.03). The second questions asked students if they had “learned something that changed the way [they] understood an issue or concept” (Item 6f, responses ranging from 1=never to 4=very often). IUP seniors’ average score (2.82) on this item was statistically **equivalent to** peer institutions (2.82), Carnegie peers (2.90) and all institutions (2.86).

RESULTS FROM THE CLA

The Collegiate Learning Assessment rates student learning outcomes in the areas of critical thinking, analytic reasoning, problem-solving and communication. These skills are combined in different ways in three kinds of tasks – the Performance Task, the Make-an-Argument Task, and the Critique-an-Argument Task (the latter two are parts of the Analytic Writing Task.) These tasks assess the skill set associated with IUP’s Expected Student Learning Outcome 2. Particular skills required include: analyzing complex and realistic scenarios, synthesizing information from a variety of sources, assessing evidence, writing a persuasive and well-supported essay, making effective arguments, identifying and explaining flaws in logic, among others. (2007-2008 CLA Technical Appendices, Appendix D. Available from Council for Aid to Education, www.cae.org/cla)

In each of these areas, IUP graduating seniors’ performance was at expected levels, and consistent with students in other institutions when adjusted for SAT scores. Full details are available in appendix C and a summary of IUP seniors’ percentile ranking is presented below:

	Percentile rank	Performance level by CLA calculations
Total CLA Score	56%	At expected performance level
Performance Task	58%	At expected performance level
Analytic Writing Task:	53%	At expected performance level
- Make-an-Argument	45%	At expected performance level
- Critique-an-Argument	55%	At expected performance level

RESULTS FROM THE LOCAL ASSESSMENT

Complementing the findings from the NSSE and the CLA, IUP also conducted a direct assessment of student performance in regards to Student Learning Outcome 2. Students' written work was assessed using these criteria located in section 2 of the rubrics and data on the distribution of student performance at each level are found in Appendix B. In summary, the findings suggest:

- Written communication presented as a relative strength of our students. Students' written communication was assessed in terms of command of language, organization, clarity, succinctness, accuracy, and the relevance or insight of any visual representations used. *Approximately two thirds of students sampled demonstrated some level of sophistication in this regard. The majority of the other students sampled produced Liberal Studies synthesis papers that were generally satisfactory, though demonstrated a few errors or relatively simplistic command of language.*
- Problem solving. *Almost 60% of graduating seniors sampled demonstrated proficient or advanced competence in problem solving skills as well.* This indicator reflects the capacity to define and articulate a problem, accurately consider elements that reflect the complexity of a problem within its context, and correctly apply a known method of addressing the problem with consideration of the complexity and context. It may also involve use of quantitative modeling where appropriate.
- Critical thinking emerged as area of relative strength for our students. *Nearly 60% of IUP students sampled demonstrated solid competence or advanced proficiency in accurately interpreting evidence, identifying relevant arguments on both sides of an issue, and providing compelling and well-supported arguments with good discrimination of the quality of sources.*

SUMMARY

The findings from the indirect and direct measures suggest that IUP is producing learning outcomes in the areas of written communication, critical thinking and analysis that are consistent with other institutions, particularly by the senior year. An area of relative weakness is freshman programming in the area of synthesis of ideas and sources.

STUDENT LEARNING OUTCOME 3

Responsible Learners are engaged citizens of a diverse democratic society who have a deep sense of social responsibility and ethical judgment. They are responsible for their personal actions and civic values. Responsible Learners demonstrate:

- intellectual honesty
- concern for social justice
- civic engagement
- an understanding of the ethical and behavioral consequences of decisions and actions on themselves, on society and on the physical world
- an understanding of themselves and a respect for the identities, histories, and cultures of others

Two sources of information provide insights into how IUP students are doing with regards to outcome 3: the NSSE (an indirect measure – student report of the experience) and the local assessment (direct measure of student learning).

RESULTS FROM THE NSSE

Several items on the NSSE addressed educational practices associated with helping students to appreciate the multiple perspectives that constitute a diverse society. Some questions related to the exposure students felt they experienced in the institution, and the impact of that exposure. For example, one question examined the extent to which students had experienced serious conversations with students who are very different from you in terms of their religious beliefs, political opinions or personal values (Item 1v). The responses of both freshman and seniors at IUP was **consistent** with those at all other institutions. Another item asked whether students felt this contributed to an understanding people of other racial and ethnic backgrounds (Item 11l). Again, IUP freshman and senior scores were **equivalent** to those of students in other institutions.

However one item asked students the frequency with which they were actively encouraged to include “diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments” (Item 1e, with responses ranging from 1=never to 4=very often). Freshman students (2.69) lagged **significantly behind** the mean compared with peer groups(2.81) and the Carnegie peers (2.84) The mean score for IUP seniors (2.87) was **consistent with** the mean of each comparison group (2.78, 2.88, and 2.80 respectively.) Another question asked to what degree students were asked to try to better understand someone else’s views by imagining how an issue looks from his or her perspective (Item 6e) IUP seniors’ mean score was **equivalent** to selected peers, but **significantly lower** than Carnegie peers.

This expected Student Learning Outcome also speaks to ethical development. One item on the NSSE asked to what extent their experience at the institution contributed to their knowledge, skills and personal development in the area of developing a personal code of values and ethics (Item 11n). IUP seniors’ mean (2.49) was **significantly lower** than Carnegie peers (2.67) and all NSSE institutions (2.66).

Other questions inquired about civic engagement. One asked about active involvement in community service or volunteer work (Item 7b). The mean (.28) for IUP freshman was

equivalent with selected peers (.31), but **quite significantly lower** than Carnegie peers (.38) and all NSSE schools (.38). This improved by the senior year, though, as 62% of IUP seniors participate in this time of service, which was **consistent with** students from the Carnegie peers(58%) and all institutions (59%), and **quite significantly higher** than the selected peer schools (53%). A similar question as students to what extent their experience at the institution contributed to their knowledge, skills and personal development in the area of contributing to the welfare of your community (Item 11o). The mean score for IUP seniors was **significantly lower** than those of the Carnegie peers and all NSSE institutions.

RESULTS FROM THE LOCAL ASSESSMENT

Complementing the findings from the NSSE, IUP also conducted a direct assessment of student performance in regards to Student Learning Outcome 3. Students' written work was assessed using these criteria located in section 3 of the rubrics; data on the distribution of student performance at each level are available in appendix B. In summary, the findings suggest:

- Academic Integrity. For the purposes of assessment, this was defined specifically as appropriate attribution of sources, both in terms of the capacity to clearly identify ideas other than one's own, and also to use correct citation formats. As student documents were heavily descriptive, students made ample use of source materials. Allowing for some instances in which students typically might not identify sources (eg., essays for exams), *only about quarter of the works sampled demonstrated proficiency or advanced skills in this area.*
- Concern for Social Justice. Evidence of the indicator *Concern for Social Justice* was present in 95% of the documents. This indicator was defined by the rating team as awareness and understanding of social problems and the complexities of social justice issues that underlie these problems. *Approximately 38% of students sampled demonstrated this capacity at proficient or advanced levels.*
- Civic Engagement Related to this topic, the indicator *Civic Engagement*, defined as awareness of or actual engagement in community matters was present in 66% of the documents. *Approximately 33% of those students sampled showed understanding of community needs, expressed commitment to or active engagement in community.*
- Appreciation for the ethical and behavioral consequences of decisions This indicator is evidenced by clear recognition of the self as interconnected, recognizing and respecting differences in priorities and values of others with a thoughtful moral code that balances one's own needs with those of others. *Over half of IUP's graduating seniors sampled displayed evidence of this at the proficient or advanced level, with another third indicating awareness or thinking along a more superficial level.*
- Respect for the identities, histories and cultures of others Evidence of this capacity would include recognition of differing perspectives on contemporary issues both globally and within the US and the limits of one's own perspective. Students with well-developed capacity would also understand several sources of diversity and the possible difference in values and behaviors and interpretations of events which result. *Over half of IUP seniors*

sampled demonstrated this capacity at the proficient or advanced level, with another third presenting this ability at a more limited level.

SUMMARY

The findings of the local assessment in particular suggest that while opportunities to exist for students to engage in and think about issues of community involvement and social justice within diverse society, students are relatively weak in this area overall. Areas of weakness include: attribution of sources in writing, application of understandings about diversity in coursework, service learning, and ethical development.

APPENDIX A

Methods Used in the Local Assessment May-June 2008

Early in Spring 2008, the University Chairs requested an assessment of the Student Learning Outcomes of the current liberal studies program for the purpose of informing the Liberal Studies Revision; the plan for this assessment was designed with that objective in mind. Thus the plan focuses on the level of achievement of the Expected Student Learning Outcomes (page 9) attained by students at the point of the culminating Liberal Studies experience, the Synthesis Course, LBST 499.

Provost's associate Susan Boser designed the assessment plan which called for a team of faculty to review a sample of course assignments produced by graduating seniors. These documents would be rated according to a set of rubrics based on the Expected Student Learning Outcomes in order to determine the degree to which these documents reflected evidence of such outcomes.

Members of the assessment team were selected in collaboration with Mary Sadler, Director of Liberal Studies, based on criteria of having experience with assessment and being located in the colleges that have been predominantly charged with providing liberal studies instruction. The assessment team included: Dan Burkett (Math), David Pistole (Biology), Mary MacLeod (Philosophy), Susan Welsh (English) and Susan Boser (Sociology). Boser led the assessment process which took place in May – June 2008.

Sampling: To ensure a cross section of majors at the same, culminating point of their studies, the plan called for cluster sampling, with the Liberal Studies Synthesis classes serving as the sampling units. These were selected as they met the criterion of including a heterogeneous mix of graduating seniors. All LBST Synthesis instructors teaching in Spring 2008 were invited to participate by submitting student coursework for assessment. Participation was voluntary. Faculty were asked to submit either samples of student work from all students in a class or, where documents were lengthy, a random sample of student work.

The assessment team received a total of 376 documents of a wide variety, ranging between 2-20 pages in length, from 13 different LBST synthesis courses in five colleges (CHSS, CHHS, CFA, CMNS, and ECOBIT).² Identifying information on all documents was removed. Boser then created a sample of 183 documents, stratified by LBST course, with documents randomly selected from each course. Each document was coded for tracking purposes. The sample was divided into 5 subsets, again stratified by course and with documents randomly selected from each course, in order to enable each member of the assessment team to rate equivalent subsets.

² We also received documents from 3 majors' capstone classes and an HNRC synthesis class, independently submitted by faculty. We opted to confine our analysis to the LBST materials for the time being, in that we got quite a small sample from the capstone courses and they varied considerably from the other products we received. However, analysis of the senior capstone documents may provide some useful information at a later point.

Measure: The assessment team created rubrics for the Expected Student Learning Outcomes approved May 2006 by Senate. The team took each of the three Expected Student Learning Outcomes and identified indicators that, if present in the work and rated, might provide evidence of achievement of the Outcomes. Then for each indicator, the team developed a set of criteria that would constitute achievement at four levels: Undeveloped, Developing, Proficient and Advanced. Rubrics from a number of universities, including some peer institutions, were collected and reviewed to inform the process. The team drafted, reviewed and revised the indicators and levels of achievement to come to consensus on 12 particular indicators. These are:

- Forms of inquiry and core concepts of the natural and social sciences
- Forms of inquiry and core concepts of the humanities
- Appreciation of the aesthetic experience of the arts and their role within the context of a culture
- Application (knowledge in practice) and/or Synthesis (interdisciplinary perspective, or ability to incorporate multiple modes of inquiry, or ability to explain links across contexts.)
- Critical thinking
- Problem-solving
- Communication
- Academic integrity as defined by appropriate attribution of claims
- Concern for social justice.
- Civic Engagement
- Appreciation for the ethical and behavioral consequences of decisions
- Respect for the identities, histories and cultures of others

When the team achieved consensus on a draft set of rubrics, each committee member rated a set of the same 6 documents (chosen from among those not selected for the sample to be rated). The team then met to review the ratings and analyze individual scoring patterns to pilot test the rubric and to promote interrater reliability. Based on this pilot, the team made final revisions to the rubrics.

Data collection and analysis: Each rater received a packet of approximately 37 equivalent documents to rate in all 12 indicators noted in the rubrics. The rater was asked to identify the level at which a document satisfied the criteria for that indicator. If the indicator was not relevant for that paper, it was coded as such. Each document was rated by only one individual. The raters recorded their scores into a database on the shared drive. Boser computed the means and frequency distributions of student performance in each indicator, and also the percentage of documents which provided evidence of the presence of the indicator.

In addition, the team met after the rating process to review and document qualitative impressions based on working with the documents. These qualitative findings are integrated with the statistical analysis to inform the final analysis and summary of the findings. At that meeting the team also compiled "lessons learned" from this process, which have been written up and will be passed on to the University Assessment Committee this fall.

Limitations of this assessment

Users of these findings should bear the following limitations in mind:

Source documents. Two potential limitations are present regarding the source documents. First, while in theory the liberal studies synthesis courses could be expected to reflect achievement of student learning outcomes, a quick perusal of the few documents from capstone classes revealed that a much higher level of quality was demonstrated in those documents compared with the liberal studies synthesis documents. The team expressed the oft-heard student perspective that students tend to take their major courses, particularly capstones, more seriously than the LBST synthesis, seeing the latter as a requirement to “get out of the way” before graduation. Thus it is possible that these documents may under represent the actual achievement levels of IUP seniors. In particular, we suspect that the indicator of “academic integrity” might have scored much higher in capstone documents.

Rubrics. Three potential limitations were noted regarding the rubrics. First, as the IUP Expected Student Learning Outcomes are broadly stated, developing operational definitions for assessment involved choices about which particular indicators to focus on and where standards of achievement should be set. While every effort was made to develop clear and thoughtful rubrics, these were not vetted beyond this workgroup. These choices should be reviewed and modified as appropriate by the University Assessment Committee.

An additional challenge relates to the membership of the assessment team itself. The committee included representatives only from the College of Humanities and Social Sciences and the College of Mathematics and Natural Science. Among other impacts, the lack of a representative from the College of Fine Arts in particular may have hampered assessment of the indicator related to the aesthetic facets of human experience, labeled here as “Arts.”

Finally, this assessment constitutes the first iteration of use of these rubrics. While generally useful and clear, the assessment team feels that the rubrics could benefit from further refinement.

Interrater reliability: As noted earlier, the team did conduct a pilot to surface differences in interpretation prior to rating the sample of documents. And while this helped to ensure some consistency, reflective discussion at the conclusion indicated that, on particularly challenging documents, different interpretations emerged in a couple key areas. In particular, this included i) how raters understood the substantive content, concepts and forms of inquiry associated with the humanities, and ii) how raters defined and understood “problem-solving.” These differences may have resulted in slightly lower ratings in the indicators areas labeled “Humanities” and “Problem-solving.”

Generalizability. These documents were anonymous. Thus while the sampling design sought to maximize obtaining a random cross-section of seniors, it is not possible to analyze the characteristics of the students whose work was assessed in order to determine the degree to which they were representative of all seniors.

APPENDIX B

2007 Mean Scores for Selected NSSE Elements:

n = 378

		IUP	SELECTED PEERS	CARNEGIE PEERS	ALL NSSE INSTITUTIONS
<i>In your experience at your institution during the current school year, about how often have you done each of the following? 1=never, 2=sometimes, 3=often, 4=very often</i>					
1d. Worked on a paper or project that required integrating ideas or information from various sources ³	FY	2.90	3.03** ⁴	3.12***	3.03**
	SR	3.36	3.25 **	3.35	3.29
e. Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments	FY	2.69	2.81*	2.84**	2.76
	SR	2.87	2.78	2.88	2.80
i. Put together ideas or concepts from different courses when completing assignments or during class discussions	FY	2.62	2.59	2.59	2.57
	SR	2.96	2.84 **	2.93	2.90
r. Worked harder than you thought you could to meet an instructor's standards or expectations	FY	2.67	2.59	2.62	2.60
	SR	2.68	2.66	2.76	2.69
v. Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values	FY	2.69	2.76	2.68	2.68
	SR	2.76	2.72	2.72	2.71
<i>During the current school year, how much has your coursework emphasized the following mental activities? 1=very little, 2=sometimes, 3=quite a bit, 4=very much</i>					
2a. Coursework emphasizes: Memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form.	FY	2.91	2.92	2.87	2.88
	SR	2.78	2.77	2.73	2.75
2b. Coursework emphasizes: Analyzing the basic elements of an idea, experience, or theory	FY	3.04	3.10	3.09	3.07
	SR	3.21	3.23	3.23	3.23
c. Coursework emphasizes: Synthesizing and organizing ideas, information, or experiences	FY	2.84	2.89	2.86	2.85
	SR	3.12	3.02 *	3.04	3.03
d. Coursework emphasizes: Making judgments about the value of information, arguments, or methods	FY	2.93	2.86	2.87	2.84
	SR	3.02	2.94	2.99	2.96

³ The difference in freshman scores carries a moderate effect size.

⁴ * p<.05 **p<.01 ***p<.0001 (2-tailed) The smaller the p value, the more likely the difference is not due to chance.

		IUP	Selected Peers	Carnegie Peers	All NSSE Institutions
e. Coursework emphasizes: Applying theories or concepts to practical problems or in new situations	FY	3.06	3.02	3.01	3.01
	SR	3.22	3.14	3.19	3.18
<i>During the current school year, about how much reading and writing have you done? 1=none, 2=1-4, 3=5-10, 4=11-20, 5=more than 20</i>					
3c. Number of written papers or reports of 20 pages or more	FY	1.30	1.28	1.25	1.24
	SR	1.57	1.66*	1.63	1.62
d. Number of written papers or reports between 5 and 19 pages ⁵	FY	2.17	2.34***	2.35***	2.25
	SR	2.63	2.59	2.56	2.55
e. Number of written papers or reports fewer than 5 pages ⁶	FY	3.10	3.00	3.03	3.02
	SR	3.36	2.86***	2.98***	2.96***
<i>In a typical week, how many homework problem sets do you complete? 1=none, 2=1-2, 3=3-4, 4=5-6, 5=more than 6</i>					
4. Number of problem sets that take you more than an hour to complete	FY	2.57	2.59	2.61	2.64
	SR	2.43	2.51	2.64**	2.58*
b. Number of problem sets that take you less than an hour to complete ⁷	FY	2.85	2.65**	2.76	2.72
	SR	2.57	2.22***	2.37**	2.32***
<i>During the current school year, about how often have you done each of the following? 1=never, 2=sometimes, 3=often, 4=very often</i>					
6d. Examined the strengths and weaknesses of your own views on a topic or issue	FY	2.51	2.49	2.59	2.56
	SR	2.61	2.58	2.71	2.68
f. Learned something that changed the way you understand an issue or concept	FY	2.77	2.80	2.79	2.79
	SR	2.82	2.82	2.90	2.86
<i>Which of the following have you done or do you plan to do before you graduate from your institution? 0=gave bit decided, do not plan to do, plan to do; 1=done. The mean is the proportion of responding "done" among all valid respondents.</i>					
7a. Practicum, internship, field experience, co-op experience, or clinical assignment	FY	.04	.09***	.08**	.07**
	SR	.57	.56	.51 *	.53

⁵ The difference in freshman scores has a small effect size

⁶ The difference in senior scores has a moderate effect size

⁷ The difference in senior scores has a moderate effect size

		IUP	Selected Peers	Carnegie Peers	All NSSE Institutions
b. Community service or volunteer work ⁸	FY	.28	.31	.38***	.38***
	SR	.62	.53 **	.58	.59
c. Participate in a learning community or some other formal program where groups of students take two or more classes together	FY	.13	.19**	.19*	.17
	SR	.29	.25	.28	.25
e. Foreign language coursework	FY	.15	.23**	.22**	.22**
	SR	.43	.40	.39	.41
<p><i>To what extent has your experience at this institution contributed to your knowledge, skills and personal development in the following areas?</i> <i>1=very little, 2=some, 3=quite a bit, 4=very much</i></p>					
11a. Acquiring a broad general education	FY	3.17	3.11	3.12	3.13
	SR	3.23	3.21	3.22	3.24
b. Acquiring job or work-related knowledge and skills ⁹	FY	2.80	2.66*	2.72	2.73
	SR	3.11	2.91 ***	3.05	3.02
c. Writing clearly and effectively	FY	3.05	2.94*	3.00	2.95
	SR	3.08	3.04	3.09	3.06
d. Speaking clearly and analytically	FY	2.85	2.71*	2.82	2.76
	SR	2.94	2.91	2.96	2.95
e. Thinking and analyzing critically	FY	3.21	3.13	3.17	3.17
	SR	3.28	3.26	3.33	3.33
h. Working effectively with others.	FY	2.91	2.88	2.96	2.93
	SR	3.09	3.04	3.15	3.12
l. Understanding people of other racial and ethnic backgrounds	FY	2.62	2.73	2.62	2.61
	SR	2.54	2.65	2.62	2.59
m. Solving complex real-world problems	FY	2.61	2.61	2.60	2.62
	SR	2.60	2.67	2.73*	2.74*
n. Developing a personal code of values and ethics	FY	2.60	2.56	2.63	2.62
	SR	2.49	2.56	2.67**	2.66**

⁸ The difference in freshman scores has a small effect size.

⁹ The difference in senior scores has a small effect size.

APPENDIX C

**Local Assessment of Current Liberal Studies Program
According to Rubrics for the IUP Expected Student Learning Outcomes
Conducted in Summer 2008**

Frequency distributions of ratings by indicator and level of achievement

	Indicator	“Proficient” or “Advanced”	“Developing”	“Undeveloped”	% documents in which evidence of indicator was present
Student Learning Outcome 1	Natural and Social Sciences	49.2%	42.4%	8.5%	32.2%
	Humanities	50.0%	40.2%	9.8%	61.2%
	Arts	63.9%	25.5%	8.5%	25.7%
	Application & Synthesis	47.1%	37.9%	14.1%	96.7%
Student Learning Outcome 2	Critical Thinking	58.8%	32.4%	8.8%	99.5%
	Problem Solving	58.3%	31.9%	9.2%	77.0%
	Communication	72.7%	23.0%	4.4%	100.0%
Student Learning Outcome 3	Academic Integrity	23.3%	28.3%	48.4%	86.9%
	Concern for social justice	38.5%	34.5%	27.0%	95.1%
	Civic engagement	32.8%	27.0%	40.2%	66.7%
	Appreciates ethical/behavioral consequences of decisions	53.2%	31.8%	14.9%	84.2%
	Respect for identities, histories, cultures of others	52.4%	32.6%	15.1%	94.0%

APPENDIX D**Findings from the Collegiate Learning Assessment (CLA)****Scores for seniors tested in Spring 2008**

	Mean SAT Score (2)	Expected CLA Score (3)	Actual CLA Score (4)	Percentile Rank (5)	Deviation Score (6)	Percentile Rank (7)	Performance Level (8)
Total CLA Score	1048	1151	1156	50	0.1	56	At
Performance Task	1048	1138	1148	49	0.2	58	At
Analytic Writing Task	1048	1161	1164	47	0.1	53	At
Make-an- Argument	1048	1154	1149	43	-0.1	45	At
Critique-an- Argument	1049	1166	1170	49	0.1	55	At