IPFW Town Hall on General Education Reading Package

This week the Assessment Office and the General Education Sub-Committee are hosting town halls to discuss proposed changes in general education assessment and the structure of the general education program. I have reassembled the background material as a single .pdf.

I. General Education Assessment Revision Plan Proposal
II. Integrating the Proposed PFW General Education Model and the Major in an Applied Liberal Arts Framework to Prepare Graduates for the 21st Century Workforce.
III. The Communicative Role of Assessment in Demonstrating the Utility of Liberal Arts in Comprehensive Regional Universities (Fall 2016 Assessment Blog)

General Education Assessment Revision Plan Proposal
D. Kent Johnson, Director of Assessment

Background:

The current assessment strategy for general education requires all general education faculty to submit an annual report at the section level. Faculty choose one or more of the statewide outcomes to assess. This approach creates six specific challenges for quality assessment of general education and for a coherent and meaningful general education experience for our students:

1. Course and section level assessment in current structure does not assure that faculty assess all the outcomes for a course.
2. The assessment at the course level provides no confidence that there is consensus on the level of learning expected of students relative to the student-learning outcome.
3. The evaluation of current assessment reports for the last two years do not provide a programmatic assessment of general education that demonstrates the extent to which planned learning activities have helped students achieve the stated SLO's for General Education.
4. A structural problem of the General Education Program is that multiple courses only partially meet SLO's from multiple SLO areas; therefore,
5. There is no assurance students meet all the SLO's.
6. Finally, the levels of student learning defined by some of the SLO's are too high for students to achieve in a lower division course.

The assessment strategy, in effect, mirrors the lack of curricular coherence of the general education program. Presently, the general education program operates as a set of distributed requirements. The proposed change in assessment strategy leverages an integrated approach to teaching, learning, and assessment to support and improve student learning. Closely related, the change in assessment strategy provides a foundation that supports using assessment findings to make programmatic improvements to the general education program.

The most recent reviews of general education indicate an additional structural problem with the general education program. Specifically, the number of courses and sections of general education offered are too large given our current enrollment levels[1]. This creates both curricular inefficiencies as too many sections fall below fifteen students and curricular incoherence, as it is difficult for students to matriculate through a meaningful shared general education experience in which they demonstrate achievement of the common SLO's mandated by the state.

The following proposal recommends implementing a new and more streamlined assessment process for general education and targeted structural changes to general education focused on increasing curricular coherence and meaning in general education. The proposed general education changes address the six challenges listed above. The proposal focus is on designing an

[1] Fall 2017: 43% of GE Sections at or below 75% Fill Rate, 27.45% at or below 50%, and 12.21% at or below 25% (827 Sections of General Education Offered)

efficient and effective assessment system for general education that ensures students demonstrate that they achieve all the mandated SLO's at levels consistent with a baccalaureate degree. To achieve these outcomes, the proposal recommends redesigning the assessment process to require all courses to assess all outcomes assigned to them on a consistent basis. This new assessment plan design stresses assessing how and to what extent students achieve general education outcomes and applying findings to make curricular changes aimed at improving student achievement of those outcomes. Finally, it addresses using prior and future assessment activity along with institutional research data on course fill rates to reduce the number of general education courses to both increase curricular efficiency and improve the likelihood students achieve those SLO's.

Overview of Recommended Changes:

Five recommended changes for delivering and assessing the general education program at IPFW are stated:

1. General education courses are required to assess all the outcomes assigned for the course. The general education subcommittee will evaluate and determine the expected outcomes assessed in the foundational intellectual skills domain and the ways of knowing domain and for the interdisciplinary and/or capstone category of the general education program[2].
2. Courses approved in the general education program meet the requirements for a single general education category.
3. Assessment of all outcomes for each general education category occur in a three year (academic year) cycle. Faculty submit annual general education assessment reports to the general education sub-committee each year. A summary report of the assessment is due to the General Education Subcommittee in the fall semester immediately following the last academic year in the three-year cycle.
4. All general education outcomes are assessed using signature assignments and common rubrics. The Office of Assessment in partnership with offices identified by the Associate Vice Chancellor for Teaching and Learning provide assessment training to establish interrater reliability. Faculty provide samples of student work from each section for the programmatic review of general education at the end of the three-year cycle.
5. Reduce the number of general education courses and sections to increase curricular coherence for students, increase curricular efficiency at the institutional level, and to facilitate learning improvements through a more focused and consequential programmatic assessment strategy.

Standardizing Course Level Assessment through a Course Review Process

[2] The proposal assumes a structural change in the general education program as discussed in the "Course Sequencing and Advising Recommendations" section. Specifically, the proposed plan separates the interdisciplinary/creative ways of knowing requirement from the ways of knowing category. This creates a new category Interdisciplinary and Creative Ways of Knowing as 300 level courses. These courses are "Cornerstone Courses" that bridge general education and the major. This change creates an "upper division" core that includes the Cornerstone Course and the Capstone Course.

The purpose of course level assessment is to examine how and/or to what extent planned learning experiences in a course are contributing to student learning relative to stated outcomes. As it relates to general education at IPFW, course level assessment measures student achievement of the specific general education outcomes. Assessing all outcomes within a category (Written Communication, Speaking and Listening, Quantitative Reasoning, the "Ways of Knowing Categories, etc.) assures students achieve the outcomes. To ease the burden on Faculty and assure high quality assessment, a three-year cycle of assessment is proposed. Over the course of three years, the recommendation is to assess and report two to three outcomes each year using the Annual General Education Course Review Template (Appendix A). At the end of the three-year period, the General Education Sub-committee (or designee) evaluate the three Annual Reports according to the assessment cycle discussed in the following section.

General Education Proposed SLO Assessment Cycle:

Assessment reporting will be on a three-year cycle. However, to ensure progress to the three-year report, faculty members teaching general education submit an annual summary report for assigned outcomes to the GE Sub-committee according to a schedule (Appendix B). At the end of the third year, departments teaching general education submit a summary report for the course to the general education subcommittee for review (Table 1).

Table 1:

GE Subcommittee Assessment Review Year	Outcomes Assessed
3	Written Communication Speaking and Listening Quantitative Reasoning
3	Scientific Ways of Knowing Social and Behavioral Ways of Knowing Humanistic and Artistic Ways of Knowing
4	Interdisciplinary or Creative Ways of Knowing Capstone Experience

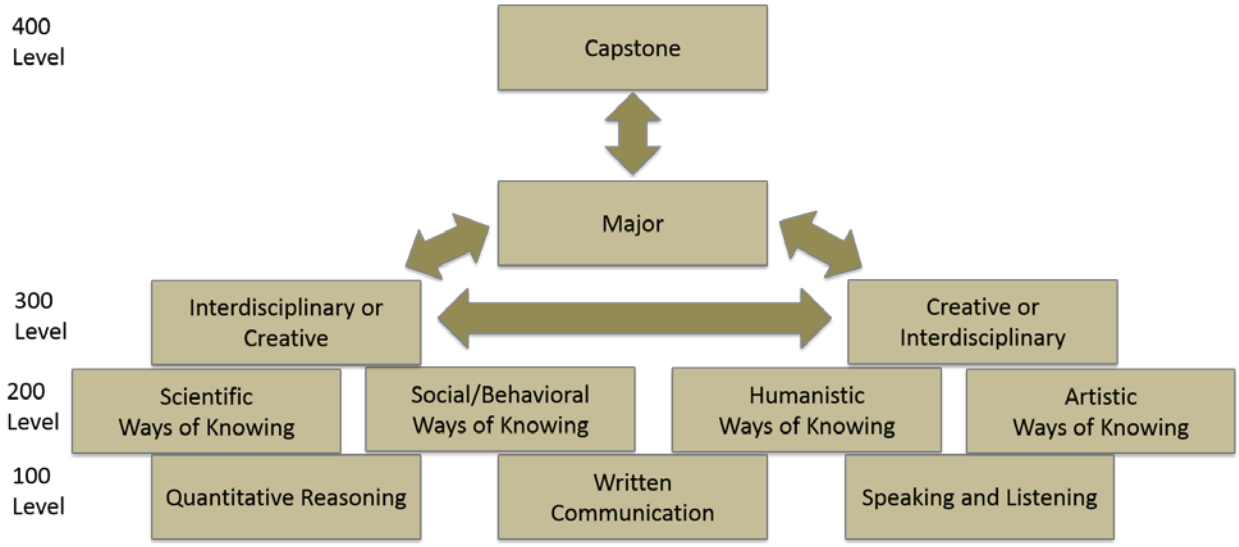
Re-Grouping, Restating, and Sequencing Mandated Statewide General Education Student Learning Outcomes for Assessment Efficiency and Effectiveness

The Statewide General Education SLO's represent legislated common expectations for all students that form the basis for a statewide articulation agreement. In many cases, the Statewide SLOs represent learning reasonably expected of students as they approach completion of a baccalaureate degree; however, the statewide requirements for articulation of courses between institutions including the community college system suggests that all general education courses should be completed at the 100 and 200 level. The decision for completion at the 100 to 200 level supports a legislative agenda focused on dual credit completion of courses in high school, articulation between Ivy Tech and four year schools, and an emphasis on timely degree completion. The conflicted policy resulted in a combination of SLO's written at an assignment or course level and SLO's written at an upper division Baccalaureate level. In the context of a

general education requirement of approximately 32 credit hours, the design flaws result in too many stated outcomes in most of the general education categories.

The proposal recommends that we map the statewide outcomes at appropriate educational level and sequence the courses as discussed in the following section. This would allow us to regroup the lower cognitive level outcomes as a limited set of the larger list of outcomes within the Foundational Skills and the Ways of Knowing Categories. To support assessing higher order cognitive skills in the junior and senior year, the Interdisciplinary/Creative Ways of Knowing, for the purposes of this proposal would become a separate category of courses delivered at the 300 level and the Capstone would be a 400 level course. This would support integrating general education and the major to increase degree quality. Figure 1 provides a graphic overview of the model.

Figure 1: Proposed General Education Structure



The proposal supports the measurement of higher order cognitive skills represented by outcomes within the State Mandated SLO's in the newly configured Interdisciplinary/Creative Ways of Knowing and the Capstone. Signature assignments appropriate to the level of learning expected of students serve as the primary assessment instrument. The redesign would also integrate the advising function within program delivery of the general education program to better support student learning.

Course Sequencing and Advising Recommendations

Analysis of the assessment results from general education and from programmatic assessment suggests that many of our students are not demonstrating achievement of higher order learning defined by some of the SLOs. Specifically, assessment findings demonstrating student ability to analyze, evaluate, and create are weak. The purpose of structuring the general education program to ensure that students can scaffold learning to their ultimate major, the curricular structure.

A structured advising approach could be implemented and general education support materials developed to enhance student progression through the proposed general education program and to help students understand the purpose and importance of integrating general and specialized learning. This emphasis provides a platform to distinguish PFW's learning experience in an applied liberal arts framework and communicate the meaning of a PFW degree through the assessment findings to external constituencies. The intentional advising approach would support student matriculation through a general education program redesigned as follows:

- Foundational Intellectual Skills (i.e. Written Communication, Speaking and Listening, and Quantitative Reasoning). Students complete the category within the first 30 credit hours of a student's matriculation to degree.
- Scientific, Social and Behavioral, and Humanistic and Artistic Ways of Knowing. Students complete these categories within the first 60 hours of matriculation to degree. The Humanistic and Artistic Ways of Knowing require three credit hours (six total) in both humanities and fine/performing arts.
- Restate the Interdisciplinary/Creative Ways of Knowing Category as a Junior Level Cornerstone Course. Departments and Programs can specify these courses to enhance the breadth of their majors or to fulfil out of department prerequisites for their majors.
- Students enroll and complete the Interdisciplinary/Creative course after 45 credit hours are completed (or concurrent in the semester that students will complete 45 credit hours). A significant outcome of the course would be to bridge general education to the major.
- The Capstone Experience should be a 400 level course taken during a student's final 30 hours of matriculation to a degree. At the major department's discretion, the capstone course can be integrated either with a capstone in the major or with independent of the major.

Students transferring with an associate degree would be required to complete the six credit hour Interdisciplinary/Creative requirement within the first 30 credit hours taken at IPFW.

Recommendation for Implementation of Signature Assignments to Assess Student Learning

Signature assignments provide an opportunity for students to demonstrate progress toward meeting specified student learning outcomes. A signature assignment "…meets a set of broad specifications for a particular area…"(Hutchings, Jankowski, and Schultz, 2016) of a core curriculum. The proposal follows recent work by AAC&U demonstrating the effectiveness of evaluating student work using peer-reviewed rubrics.

AACU's Valid Assessment of Learning in Undergraduate Research Project (VALUE) demonstrated the utility of assessing authentic student work across "…students' diverse learning pathways, fields of study and institutions" (AACU, 2017). The proposed assessment plan applies AAC&U's VALUE Rubrics to assess authentic work produced by students in general education courses at PFW. This approach allows course level assessment to scaffold to a programmatic assessment of general education. Appendix C demonstrates using VALUE Rubrics as metrics for PFW's Foundational Intellectual Skills. Across the other categories, similar rubrics could be developed with faculty representation from multiple disciplines offering

courses in the category to provide common expectations for and definitions of the specific SLO's and to facilitate signature assignments as a consistent authentic assessment strategy at the programmatic level.

Signature assignments provide an opportunity to examine differential effects of course level curricular design on student learning. The basic research design treats the assessment instrument as part of the treatment (in this case the instructional design) and the reported results as an observation.[3] Using signature assignments as a platform for programmatic assessment of general education affects the design of all general education courses. The approach requires general education courses to include an assignment that follows a signature assignment framework determined by the General Education Subcommittee. The Office of Assessment would provide training and assignment design support. Faculty would maintain the ability to design the assignment to fit the specific content needs of the course and to assign grades and weights to the assignment. A team of trained evaluators is responsible for the programmatic assessment of general education. This team will assess samples of student work all general education courses in a category using the common rubrics. To facilitate this process, the General Education Sub-Committee should solicit a representative group of faculty to complete the restatement of general

[3] The basic research design treats the assessment instrument as part of the treatment (in this case the instructional design) and the reported results are treated as an observation. The assessment design can be presented schematically following Campbell and Stanley (1963) as a form of quasi-experimentation. The specific design is cast in the context comparing two different sections of a single course or evaluating the effect of a curricular change in Year 2 within a single course.

Year 1 Semester 1 (cohort 1): O1 - XO2 -
Year 1 Semester 2 (cohort 2): O3 - XO4

Year 2 Semester 1 (cohort 1): O1 - XO2 -
Year 2 Semester 2 (cohort 2): O3 - XO4

This example assumes an instructional or curricular change in the course is made at the end of year 1 based on findings of XO2 and XO4. At the end of year 2, one could compare Year 1 performance on the signature assignment to Year 2 performance on the signature assignment to observe if differences in instructional strategy between two sections result in differences in achievement relative to the outcome. Or, evaluate how changes in curriculum within a course resulted in a change in performance. An ANOVA procedure examines differences in mean performance across Year 1 XO2XO4 and Year 2 XO2XO4. The use of common rubrics could also allow analysis of different instructional strategies across courses in the same category to inform practice.

Following Fulcher, et al (2014), the approach operationalizes assessment as a pseudo-longitudinal design measuring the performance of two independent cohorts of students at two points in time. An effect size measure (Cohen's d) evaluates differences in performance between Cohort 1 (pre-intervention) and Cohort 2 (post intervention). The same approach could examine the differential effects of different instructional designs across multiple sections of a singular course.

A statistical control through a pretest to measure heterogeneity of groups and additional controls for internal and external threats to validity can provide additional confidence. A full discussion of the assessment mechanics using this specific methodology is beyond the scope of this proposal; however, it is included to explain how embedded assessments can serve as valid and reliable measures.

education outcomes during the 2017-18 academic year with an expectation to begin transitioning the general education program in 2018-19 academic year for implementation in the 2019-20 academic year.

Appendix A: Annual General Education Course Review Template

Faculty members teaching general education courses will provide an assessment report to the Assessment Office. This report will identify the outcome(s) addressed in the current annual report period, the learning activities in the course supporting the outcome, measures used, and assessment results indicating the extent to which students achieved the outcome. Finally, the Assessment Discussion will describe the assessment findings for the course, the effectiveness of changes in the course, and plans for future revisions (see example 1) on the last page of Appendix A.

Annual General Education Course Review Template

Course_____ Section(s) _____

<table>
<tr><td colspan="2">GE Outcome</td><td>Teaching/Learning Activity</td><td>Student Product or Performance from TL Activity</td><td>Measure
(e.g. Rubric)</td><td colspan="2">Assessment of Student Learning Performance</td></tr>
<tr><td colspan="2" rowspan="6"></td><td rowspan="6"></td><td rowspan="6"></td><td rowspan="6"></td><td>Rubric Level</td><td># of Students</td></tr>
<tr><td>Capstone</td><td></td></tr>
<tr><td>Milestone 2</td><td></td></tr>
<tr><td>Milestone 1</td><td></td></tr>
<tr><td>Benchmark</td><td></td></tr>
<tr><td>Total</td><td></td></tr>
<tr><td rowspan="2">Course</td><td rowspan="2">Section</td><td colspan="5">Number of Students Achieving Level of Learning Relative to Rubric Below</td></tr>
<tr><td>Capstone (4)</td><td>Milestone 2 (3)</td><td>Milestone 1 (2)</td><td colspan="2">Benchmark (1)</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td colspan="2"></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td colspan="2"></td></tr>
</table>

Describe your assessment findings for the course. (How and/or to what extent did students achieve the expected learning outcome?

Describe changes you are planning in your course to help improve student learning relative to the outcome assessed.

Appendix A, Example 1:

<table>
<tr><th colspan="2">GE Outcome</th><th>Teaching/Learning Activity</th><th>Student Product or Performance from TL Activity</th><th>Measure
(e.g. Rubric)</th><th colspan="2">Assessment of Student Learning Performance</th></tr>
<tr><td colspan="2" rowspan="5">1.7</td><td rowspan="5">Guided Inquiry Activities:
• Determining relevant sources exercise
• Lecture on evaluating sources
• Electronic Data Base Hunt</td><td rowspan="5">Three paragraph description of search strategy and an Annotated Bibliography</td><td rowspan="5">GE SLO 1.7 Rubric</td><td>Rubric Level</td><td># of Students</td></tr>
<tr><td>Capstone</td><td>14</td></tr>
<tr><td>Mile 2</td><td>14</td></tr>
<tr><td>Mile 1</td><td>3</td></tr>
<tr><td>Benchmark</td><td>3</td></tr>
<tr><td rowspan="2">Course</td><td rowspan="2">Section</td><td colspan="5">Number of Students Achieving Level of Learning Relative to Rubric Below</td></tr>
<tr><td>Capstone (4)</td><td>Milestone 2 (3)</td><td>Milestone 1 (2)</td><td colspan="2">Benchmark (1)</td></tr>
<tr><td>XXX</td><td>01</td><td>3</td><td>10</td><td>2</td><td colspan="2">2</td></tr>
<tr><td>XXX</td><td>02</td><td>11</td><td>4</td><td>1</td><td colspan="2">1</td></tr>
</table>

Describe your assessment findings for the course. (How and/or to what extent did students achieve the expected learning outcome?)

We expected 70% of students to demonstrate capstone level in the assignment. Section 2 had added a library exercise based on last semester's results and approached 70% at capstone level while Section 1 did not. A comparison of the two sections revealed that the two-day exercise in the library with a resource specialist on search strategies and identifying valid sources in electronic data bases likely contributed to the difference in performance. An analysis of variance conducted on the results of a pre-test in both sections and revealed no significant difference. This suggested the two groups were comparable and approached equivalence. The addition of the library exercise was the only difference.

Describe changes you are planning in your course to help improve student learning relative to the outcome assessed.

Students in all sections will spend one to two class periods in a structured learning environment with the library resource specialist to demonstrate selection of valid electronic sources. In addition, we are adding resource materials in Blackboard on selecting electronic databases.

Appendix B - Assessment Cycle for all General Education Domains

Assessment Cycle - Written Communication							
Outcomes Assessed by Year	1.1	1.2	1.3	1.4	1.5	1.6	1.7
1	X	X					
2			X	X	X		
3						X	X

Assessment Cycle - Speaking and Listening							
Outcomes Assessed by Year	2.1	2.2	2.3	2.4	2.5	2.6	2.7
1	X	X					
2			X	X	X		
3						X	X

Assessment Cycle - Quantitative Reasoning								
Outcomes Assessed by Year	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8
1	X	X			X			
2			X	X			X	
3						X		X

Assessment Cycle - Scientific Ways of Knowing						
Outcomes Assessed by Year	4.1	4.2	4.3	4.4	4.5	4.6
1	X	X				
2			X	X		
3					X	X

Assessment Cycle - Social and Behavioral						
Outcomes Assessed by Year	5.1	5.2	5.3	5.4	5.5	5.6
1	X	X				
2			X	X		
3					X	X

Assessment Cycle - Humanistic							
Outcomes Assessed by Year	6.1	6.2	6.3	6.4	6.5	6.6	6.7
1	X	X					
2			X	X	X		
3						X	X

Assessment Cycle - Artistic							
Outcomes Assessed by Year	6.1	6.2	6.3	6.4	6.5	6.6	6.7
1	X	X					
2			X	X	X		
3						X	X

Appendix B - 2: Interdisciplinary and Capstone - Years 1-3 Collection, Year 4 Report

Assessment Cycle - Interdisciplinary (Assessment of prior 3 years of student products)			
Outcomes Assessed by Year	7.1	7.2	7.3*
Summary of 3 Prior Year Assessment Report	X	X	X

*7.3 would be a review of student peer reviews of products over the three years. Therefore, each year students would perform a peer analysis of work. Faculty would review the accumulated peer reviews in Year 4.

Assessment Cycle - Creative (Assessment of prior 3 years of student products)*			
Year	7.1	7.2	7.3*
4	X	X	X

*7.3 would be a review of student peer reviews of products over the three years. Therefore, each year students would perform a peer analysis of work. Faculty would review the accumulated peer reviews in Year 4.

Assessment Cycle - Capstone (Assessment of prior 3 years of student products)				
Outcomes Assessed by Year	8.1	8.2	8.3	8.4
4	X	X	X	X

Appendix C: IPFW Foundational Knowledge and AAC&U Value Rubrics

	IPFW General Education Rubric (Grounded in AAC&U Value Rubrics) – Written Communication			
IPFW General Education Student Learning Outcomes	**Capstone 4**	**Milestones**		**Benchmark 1**
		3	**2**	
1.1. Produce texts that use appropriate formats, genre conventions, and documentation styles while controlling tone, syntax, grammar, and spelling.	Demonstrates detailed attention to and successful execution of a wide range of conventions particular to a specific discipline and/or writing task (s) including organization, content, presentation, formatting, and stylistic choices	Demonstrates consistent use of important conventions particular to a specific discipline and/or writing task(s), including organization, content, presentation, and stylistic choices	Follows expectations appropriate to a specific discipline and/or writing task(s) for basic organization, content, and presentation	Attempts to use a consistent system for basic organization and presentation.
	Uses graceful language that skillfully communicates meaning to readers with clarity and fluency, and is virtually error- free.	Uses straightforward language that generally conveys meaning to readers. The language in the assignment has few errors.	Uses language that generally conveys meaning to readers with clarity, although writing may include some errors.	Uses language that sometimes impedes meaning because of errors in usage.
1.2. Demonstrate an understanding of writing as a social process that includes multiple drafts, collaboration, and reflection.	Builds on the ideas of others to advance the work of the writing.	Offers solutions or courses of action that advance the work of the writing.	Offers/accepts suggestions to advance the work of the writing.	Communicates ideas but does not advance the work of the writing.
	Completes at least two drafts that show significant changes and reflects on what was learned through the drafting process.	Completes at least two drafts that show significant changes and reflects on their significance.	Completes at least two drafts that show changes and reflects on the changes.	Completes at least two drafts that show changes and reflects on the writing.

	IPFW General Education Rubric (Grounded in AAC&U Value Rubrics) – Written Communication			
IPFW General Education Student Learning Outcomes	**Capstone 4**	**Milestones**		**Benchmark 1**
		3	**2**	
1.3. Read critically, summarize, apply, analyze, and synthesize information and concepts in written and visual texts as the basis for developing original ideas and claims.	Communicates, organizes and synthesizes information from sources to fully achieve a specific purpose, with clarity and depth	Communicates, organizes and synthesizes information from sources. Intended purpose is achieved.	Communicates and organizes information from sources. The information is not yet synthesized, so the intended purpose is not fully achieved	Communicates information from sources. The information is fragmented and/or used Inappropriately (misquoted, taken out of context, or incorrectly paraphrased, etc.), so the intended purpose is not achieved.
1.4. Demonstrate an understanding of writing assignments as a series of tasks including identifying and evaluating useful and reliable outside sources.	Demonstrates skillful use of high quality, credible, relevant sources to develop ideas that are appropriate for the discipline and genre of the writing	Demonstrates consistent use of credible, relevant sources to support ideas that are situated within the discipline and genre of the writing.	Demonstrates an attempt to use credible and/or relevant sources to support ideas that are appropriate for the discipline and genre of the writing	Demonstrates an attempt to use sources to support ideas in the writing
1.5. Develop, assert and support a focused thesis with appropriate reasoning and adequate evidence.	Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding, and shaping the whole work.	Uses appropriate, relevant, and compelling content to explore ideas within the context of the discipline and shape the whole work.	Uses appropriate and relevant content to develop and explore ideas through most of the work.	Uses appropriate and relevant content to develop simple ideas in some parts of the work.

	IPFW General Education Rubric (Grounded in AAC&U Value Rubrics) – Written Communication			
IPFW General Education Student Learning Outcomes	**Capstone 4**	**Milestones**		**Benchmark 1**
		3	**2**	
1.6. Compose texts that exhibit appropriate rhetorical choices, which include attention to audience, purpose, context, genre, and convention.	Demonstrates a thorough understanding of context, audience, and purpose that is responsive to the assigned task(s) and focuses all elements of the work.	Demonstrates adequate consideration of context, audience, and purpose and a clear focus on the assigned task(s) (e.g., the task aligns with audience, purpose, and context).	Demonstrates awareness of context, audience, purpose, and to the assigned tasks(s) (e.g., begins to show awareness of audience's perceptions and assumptions).	Demonstrates minimal attention to context, audience, purpose, and to the assigned tasks(s) (e.g., expectation of instructor or self as audience).
	Demonstrates detailed attention to and successful execution of a wide range of conventions particular to a specific discipline and/or writing task (s) including organization, content, presentation, formatting, and stylistic choices	Demonstrates consistent use of important conventions particular to a specific discipline and/or writing task(s), including organization, content, presentation, and stylistic choices	Follows expectations appropriate to a specific discipline and/or writing task(s) for basic organization, content, and presentation	Attempts to use a consistent system for basic organization and presentation.

	IPFW General Education Rubric (Grounded in AAC&U Value Rubrics) – Written Communication			
IPFW General Education Student Learning Outcomes	**Capstone 4**	**Milestones**		**Benchmark 1**
		3	**2**	
1.7. Demonstrate proficiency in reading, evaluating, analyzing, and using material collected from electronic sources (such as visual, electronic, library databases, Internet sources, other official databases, federal government databases, reputable blogs, wikis, etc.).	Accesses information using effective, well designed search strategies and most appropriate information sources.	Accesses information using variety of search strategies and some relevant information sources. Demonstrates ability to refine search.	Accesses information using simple search strategies, retrieves information from limited and similar sources.	Accesses information randomly, retrieves information that lacks relevance and quality.
	Chooses a variety of information sources appropriate to the scope and discipline of the research question. Selects sources after considering the importance (to the researched topic) of the multiple criteria used (such as relevance to the research question, currency, authority, audience, and bias or point of view).	Chooses a variety of information sources appropriate to the scope and discipline of the research question. Selects sources using multiple criteria (such as relevance to the research question, currency, and authority).	Chooses a variety of information sources. Selects sources using basic criteria (such as relevance to the research question and currency).	Chooses a few information sources. Selects sources using limited criteria (such as relevance to the research question).

	IPFW General Education Rubric (Grounded in AAC&U Value Rubrics) – Oral Communication			
IPFW General Education Student Learning Outcomes	**Capstone** **4**	**Milestones**		**Benchmark** **1**
		3	**2**	
2.1 Use appropriate organization or logical sequencing to deliver an oral message.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable and is skillful and makes the content of the presentation cohesive.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is intermittently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is not observable within the presentation
2.2 Adapt an oral message for diverse audiences, contexts, and communication channels.	Language choices are imaginative, memorable, and compelling, and enhance the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are thoughtful and generally support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are mundane and commonplace and partially support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are unclear and minimally support the effectiveness of the presentation. Language in presentation is not appropriate to audience.
2.3 Identify and demonstrate appropriate oral and nonverbal communication practices.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation compelling, and speaker appears polished and confident.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation interesting, and speaker appears comfortable.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation understandable, and speaker appears tentative.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) detract from the understandability of the presentation, and speaker appears uncomfortable.

	IPFW General Education Rubric (Grounded in AAC&U Value Rubrics) – Oral Communication			
IPFW General Education Student Learning Outcomes	**Capstone**	**Milestones**		**Benchmark**
	4	**3**	**2**	**1**
2.4 Advance an oral argument using logical reasoning.	Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.	Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.	Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.
2.5 Provide credible and relevant evidence to support an oral argument.	A variety of types of supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that significantly supports the presentation or establishes the presenter's credibility/authority on the topic.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that generally supports the presentation or establishes the presenter's credibility/authority on the topic.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that partially supports the presentation or establishes the presenter's credibility/authority on the topic.	Insufficient supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make reference to information or analysis that minimally supports the presentation or establishes the presenter's credibility/ authority on the topic.

	IPFW General Education Rubric (Grounded in AAC&U Value Rubrics) – Oral Communication			
IPFW General Education Student Learning Outcomes	**Capstone** **4**	**Milestones**		**Benchmark** **1**
		3	**2**	
2.6 Demonstrate the ethical responsibilities of sending and receiving oral messages.	Student can independently apply ethical perspectives/ concepts to an ethical question, accurately, and is able to consider full implications of the application.	Student can independently (to a new example) apply ethical perspectives/ concepts to an ethical question, accurately, but does not consider the specific implications of the application.	Student can apply ethical perspectives/concepts to an ethical question, independently (to a new example) and the application is inaccurate.	Student can apply ethical perspectives/ concepts to an ethical question with support (using examples, in a class, in a group, or a fixed-choice setting) but is unable to apply ethical perspectives/concepts independently (to a new example.).
2.7 Summarize or paraphrase an oral message to demonstrate comprehension.	Recognizes possible implications of the oral message for contexts, perspectives, or issues beyond the assigned task within the classroom or beyond the speaker's explicit message (e.g. might recognize broader issues at play, or might pose challenges to the speaker's message and presentation).	Uses the spoken message, general background knowledge, and/or specific knowledge of the speaker's context to draw more complex inferences about the speaker's message and attitude.	Evaluated how oral features (e.g. speech structure or tone) contribute to the speaker's message, draws basic inferences about context and purpose of message.	Apprehends speech appropriately to paraphrase or summarize the information communicated.

	IPFW General Education Rubric (Grounded in AAC&U Value Rubrics) – Quantitative Reasoning			
IPFW General Education Student Learning Outcomes	**Capstone** **4**	**Milestones**		**Benchmark** **1**
		3	**2**	
3.1. Interpret information that has been presented in mathematical form (e.g. with functions, equations, graphs, diagrams, tables, words, geometric figures)	Provides accurate explanations of information presented in mathematical forms. Makes appropriate inferences based on that information. For example, accurately explains the trend data shown in a graph and makes reasonable predictions regarding what the data suggest about future events.	Provides accurate explanations of information presented in mathematical forms. For instance, accurately explains the trend data shown in a graph.	Provides somewhat accurate explanations of information presented in mathematical forms, but occasionally makes minor errors related to computations or units. For instance, accurately explains trend data shown in a graph, but may miscalculate the slope of the trend line.	Attempts to explain information presented in mathematical forms, but draws incorrect conclusions about what the information means. For example, attempts to explain the trend data shown in a graph, but will frequently misinterpret the nature of that trend, perhaps by confusing positive and negative trends.
3.2. Represent information/data in mathematical form as appropriate (e.g. with functions, equations, graphs, diagrams, tables, words, geometric figures).	Skillfully converts relevant information into an insightful mathematical portrayal in a way that contributes to a further or deeper understanding	Competently converts relevant information into an appropriate and desired mathematical portrayal.	Completes conversion of information but resulting mathematical portrayal is only partially appropriate or accurate.	Completes conversion of information but resulting mathematical portrayal is inappropriate or inaccurate.

	IPFW General Education Rubric (Grounded in AAC&U Value Rubrics)– Quantitative Reasoning			
IPFW General Education Student Learning Outcomes	**Capstone** **4**	**Milestones**		**Benchmark** **1**
		3	**2**	
3.3. Demonstrate skill in carrying out mathematical (e.g. algebraic, geometric, logical, statistical) procedures flexibly, accurately, and efficiently to solve problems.	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem. Calculations are also presented elegantly (clearly, concisely, etc.)	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem.	Calculations attempted are either unsuccessful or represent only a portion of the calculations required to comprehensively solve the problem.	Calculations are attempted but are both unsuccessful and are not comprehensive.
3.4. Analyze mathematical arguments, determining whether stated conclusions can be inferred.	Uses the quantitative analysis of data as the basis for deep and thoughtful judgments, drawing insightful, carefully qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for competent judgments, drawing reasonable and appropriately qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for workmanlike (without inspiration or nuance, ordinary) judgments, drawing plausible conclusions from this work.	Uses the quantitative analysis of data as the basis for tentative, basic judgments, although is hesitant or uncertain about drawing conclusions from this work.
3.5. Communicate which assumptions have been made in the solution process.	Explicitly describes assumptions and provides compelling rationale for why each assumption is appropriate. Shows awareness that confidence in final conclusions is limited by the accuracy of the assumptions.	Explicitly describes assumptions and provides compelling rationale for why assumptions are appropriate.	Explicitly describes assumptions.	Attempts to describe assumptions.

	IPFW General Education Rubric (Grounded in AAC&U Value Rubrics)– Quantitative Reasoning			
IPFW General Education Student Learning Outcomes	**Capstone** **4**	**Milestones**		**Benchmark** **1**
		3	**2**	
3.6. Analyze mathematical results in order to determine the reasonableness of the solution.	Uses the quantitative analysis of data as the basis for deep and thoughtful judgments, drawing insightful, carefully qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for competent judgments, drawing reasonable and appropriately qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for workmanlike (without inspiration or nuance, ordinary) judgments, drawing plausible conclusions from this work.	Uses the quantitative analysis of data as the basis for tentative, basic judgments, although is hesitant or uncertain about drawing conclusions from this work.
3.7. Cite the limitations of the process where applicable.	Explicitly describes assumptions and provides compelling rationale for why each assumption is appropriate. Shows awareness that confidence in final conclusions is limited by the accuracy of the assumptions.	Explicitly describes assumptions and provides compelling rationale for why assumptions are appropriate.	Explicitly describes assumptions.	Attempts to describe assumptions.
3.8. Clearly explain the representation, solution, and interpretation of the math problem.	Uses quantitative information in connection with the argument or purpose of the work, presents it in an effective format, and explicates it with consistently high quality.	Uses quantitative information in connection with the argument or purpose of the work, though data may be presented in a less than completely effective format or some parts of the explication may be uneven.	Uses quantitative information, but does not effectively connect it to the argument or purpose of the work.	Presents an argument for which quantitative evidence is pertinent, but does not provide adequate explicit numerical support. (May use quasi-quantitative words such as "many," "few," "increasing," "small," and the like in place of actual quantities.)

General Education SLO's

Category A: Foundational Intellectual Skills

Written Communication

1.1. Produce texts that use appropriate formats, genre conventions, and documentation styles while controlling tone, syntax, grammar, and spelling.

1.2. Demonstrate an understanding of writing as a social process that includes multiple drafts, collaboration, and reflection.

1.3. Read critically, summarize, apply, analyze, and synthesize information and concepts in written and visual texts as the basis for developing original ideas and claims.

1.4. Demonstrate an understanding of writing assignments as a series of tasks including identifying and evaluating useful and reliable outside sources.

1.5. Develop, assert and support a focused thesis with appropriate reasoning and adequate evidence.

1.6. Compose texts that exhibit appropriate rhetorical choices, which include attention to audience, purpose, context, genre, and convention.

1.7. Demonstrate proficiency in reading, evaluating, analyzing, and using material collected from electronic sources (such as visual, electronic, library databases, Internet sources, other official databases, federal government databases, reputable blogs, wikis, etc.).

Speaking and Listening

2.1. Use appropriate organization or logical sequencing to deliver an oral message.

2.2. Adapt an oral message for diverse audiences, contexts, and communication channels.

2.3. Identify and demonstrate appropriate oral and nonverbal communication practices.

2.4. Advance an oral argument using logical reasoning.

2.5. Provide credible and relevant evidence to support an oral argument.

2.6. Demonstrate the ethical responsibilities of sending and receiving oral messages.

2.7. Summarize or paraphrase an oral message to demonstrate comprehension.

Quantitative Reasoning

3.1. Interpret information that has been presented in mathematical form (e.g. with functions, equations, graphs, diagrams, tables, words, geometric figures).

3.2. Represent information/data in mathematical form as appropriate (e.g. with functions, equations, graphs, diagrams, tables, words, geometric figures).

3.3. Demonstrate skill in carrying out mathematical (e.g. algebraic, geometric, logical, statistical) procedures flexibly, accurately, and efficiently to solve problems.

3.4. Analyze mathematical arguments, determining whether stated conclusions can be inferred.

3.5. Communicate which assumptions have been made in the solution process.

3.6. Analyze mathematical results in order to determine the reasonableness of the solution.

3.7. Cite the limitations of the process where applicable.

3.8. Clearly explain the representation, solution, and interpretation of the math problem.

Category B: Ways of Knowing

Scientific Ways of Knowing

4.1. Explain how scientific explanations are formulated, tested, and modified or validated.

4.2 Distinguish between scientific and non-scientific evidence and explanations.

4.3 Apply foundational knowledge and discipline-specific concepts to address issues or solve problems

4.4 Apply basic observational, quantitative, or technological methods to gather data and generate evidence-based conclusions.

4.5 Use current models and theories to describe, explain, or predict natural phenomena.

4.6 Locate reliable sources of scientific evidence to construct arguments related to real-world issues.

Social and Behavioral Ways of Knowing

5.1 Demonstrate knowledge of major concepts, theoretical perspectives, empirical patterns, or historical contexts within a given social or behavioral domain.

5.2 Identify the strengths and weaknesses of contending explanations or interpretations for social, behavioral, or historical phenomena.

5.3 Demonstrate basic literacy in social, behavioral, or historical research methods and analyses.

5.4 Evaluate evidence supporting conclusions about the behavior of individuals, groups, institutions, or organizations.

5.5 Recognize the extent and impact of diversity among individuals, cultures, or societies in contemporary or historical contexts.

5.6 Identify examples of how social, behavioral, or historical knowledge informs and can shape personal, ethical, civic, or global decisions and responsibilities.

Humanistic and Artistic Ways of Knowing

6.1 Recognize and describe humanistic, historical, or artistic works or problems and patterns of the human experience.

6.2 Apply disciplinary methodologies, epistemologies, and traditions of the humanities and the arts, including the ability to distinguish primary and secondary sources.

6.3 Analyze and evaluate texts, objects, events, or ideas in their cultural, intellectual or historical contexts.

6.4 Analyze the concepts and principles of various types of humanistic or artistic expression.

6.5 Create, interpret, or reinterpret artistic and/or humanistic works through performance or criticism.

6.6 Develop arguments about forms of human agency or expression grounded in rational analysis and in an understanding of and respect for spatial, temporal, and cultural contexts.

6.7 Analyze diverse narratives and evidence in order to explore the complexity of human experience across space and time.

Interdisciplinary or Creative Ways of Knowing

7.1 Demonstrate an understanding of the creative process using the vocabulary of the appropriate discipline.

7.2 Perform or create a work of personal expression and bring the work to fruition using applicable skills.

7.3 Articulate a reflective and critical evaluation of their own and other’s creative efforts using written and/or oral communication.

7.4 At least two additional learning outcomes selected from 1.1-6.7.

Category C: Capstone

8.1. Produce an original work involving the creation or application of knowledge, performance or service.

8.2. Report the results of original work through a discipline-appropriate product.

8.3. Demonstrate a high level of personal integrity and professional ethics by understanding the ethical responsibilities related to the profession associated with the subject of the capstone project.

8.4. Demonstrate critical-thinking abilities and familiarity with quantitative and/or qualitative reasoning.

Integrating the Proposed PFW General Education Model and the Major in an Applied Liberal Arts Framework to Prepare Graduates for the 21st Century Workforce

D. Kent Johnson, Director of Assessment and Institutional Program Review

Introduction:

The General Education Assessment Revision Plan Proposal introduced potential changes in the assessment of general education as well as structural changes in the general education program. The proposed changes seek to integrate general education with the majors to create a coherent general education curricular model (Appendix A). The model proposes sequencing general education throughout the baccalaureate curriculum to help students connect a broad understanding of the construction of knowledge within and across disciplines to specific study in a major.

The internal focus of the design presented in the proposal was on specific changes in the assessment and structure of the general education program to increase curricular coherence at the institutional level and to promote a more meaningful general education experience at the individual student level. The following white paper extends the design paradigm to describe how the proposed plan integrates student learning in general education and majors to create a distinctive PFW baccalaureate degree that prepares students to meet the demands of the 21st Century Workforce. It describes how the assessment strategy grounded in signature assignments improves the quality of student learning and communicates the relevance and distinctiveness of the PFW Degree to external constituents - more specifically constituents likely to employ PFW Graduates.

Connecting the PFW Baccalaureate to Demands of the 21st Century Workforce:

The proposed general education assessment plan embeds a curricular structure aimed at helping students matriculate through a meaningful baccalaureate degree. The proposal specifically mentions the concept of an "applied" liberal arts foundation that alternately might be phrased a practical liberal arts education. Central to the conceptualization of PFW's General Education Program as an applied or practical liberal arts foundation for a distinctive PFW Baccalaureate is a wealth of research in recent years that asked potential employers to identify what they felt were the most important knowledge, skills, and values college graduates should possess in order to transition to successful employees. A large proportion of those knowledge, skill, and value domains are areas that are specific attributes of liberal education.

A recent study conducted by the National Association of Colleges and Employers asked employers to rate career readiness competencies on a scale ranging from "not essential" (1) to "absolutely essential" (5). Table 1 presents the highest rated competencies.

Table 1: Employer Ratings of the Essential Needs for Career Readiness

COMPETENCIES	WEIGHTED AVERAGE RATING*
Critical Thinking/Problem Solving	4.62
Teamwork/Collaboration	4.56
Professionalism/Work Ethic	4.46
Oral/Written Communications	4.30
Leadership	3.82
Digital Technology	3.73
Career Management	3.46
Global/Multi-cultural Fluency	3.01

(National Association of Colleges and Employers (2017).

A second line of research conducted by the Association of American Colleges and Universities between 2006 and 2015 explored employer priorities for the most important learning outcomes expected of graduates (Hart Research Associates, 2015). Eighty percent or more of the employers surveyed identified the following as outcomes essential for college graduates:

- Problem solving in diverse settings (96%)
- Knowledge and understanding of democratic institutions and values (87%)
- Civic knowledge, skills, and judgement essential for contributing to the community and our democratic society (86%)
- Oral communication (85%)
- Teamwork skills in diverse groups (83%)
- Written communication (82%)
- Critical thinking and analytical reasoning (81%)
- Ethical judgement and decision-making (80%)
- Applied knowledge in real-world settings (81%)

Across our academic programs and majors, the competences identified by employers and outcomes of graduates expected by employers are well represented by our espoused curricula. The General Education Student Learning Outcomes and the current IPFW Baccalaureate Framework align with these same desired competencies and outcomes.

However, the construction of programmatic curricula and the general education curriculum as well as the ways we ask students to demonstrate achievement of expected learning outcomes in general education and the major often lack coherence making it difficult for students to experience a meaningful undergraduate curriculum. As a result, students do not have adequate opportunity to develop and demonstrate how their knowledge, skills, and values will contribute to the organizations seeking to hire college graduates.

This challenge is common across the higher education landscape. Table 2 presents findings from the 2018 NACE Study comparing the percentage of employers who rated competencies as either

"essential" (4) or "absolutely essential" (5) to the percentage of employers who rated recent graduates as either "very proficient" (4) or "extremely proficient" (5) on these competencies.

Table 2: Employer ratings of recent college graduate proficiencies relative to essential competencies

COMPETENCIES	CONSIDERED ESSENTIAL	RATED PROFICIENT
Teamwork/Collaboration	**97.5%**	**77.0%**
Digital Technology	**64.2%**	**65.8%**
Critical Thinking/Problem Solving	**99.2%**	**55.8%**
Professionalism/Work Ethic	**100%**	**42.5%**
Oral/Written Communications	**95.9%**	**41.6%**
Leadership	**68.6%**	**33.0%**
Global/Multi-Cultural Fluency	**31.1%**	**20.7%**
Career Management	**47.1%**	**17.3%**

The foundation of the proposed assessment strategy is the use of signature assignments as a common platform to demonstrate student achievement of learning outcomes defined by our faculty in general education and the major within the Baccalaureate Framework. Building on the work conducted by AAC&U in the Value Rubric Project, the common platform for evaluating signature assignments using individual products produced by students across multiple courses and sections to facilitate programmatic assessment of common learning outcomes. The approach allows individual students to demonstrate development relative to the outcomes while also providing evidence that PFW graduates are proficient in the very competencies employers consider essential for success.

Rationale for Signature Assignments as Evidence of 21st Century Learning:

The emphasis on signature assignments is critical for two reasons. First, the product of the signature assignment is a high quality assessment of learning that **demonstrates** student achievement relative to a specific desired learning outcome. This type of assessment provides our faculty an opportunity to explore how the constructed learning environment contributes to student gains and use this information to improve the quality of courses and programs. Second, the products provide an opportunity for students to begin construction of a portfolio that helps them connect general education and the major in meaningful ways that they can **communicate** to external constituents.

The structural changes to general education focused more on helping students matriculate through a meaningful degree that intentionally connects general education and the major. Because many of the stated general education learning outcomes are at higher cognitive levels best demonstrated by students as they integrate general and specialized knowledge to create potential solutions to complex problems, the design sequences general education from the first year through a senior year capstone. The plan suggests students complete all Foundational

Skills in the first two semesters and the disciplinary ways of knowing category within the first sixty credit hours. The interdisciplinary/creative block at the Junior (300) Level is the initial bridge between general education and the major. The interdisciplinary creative block at the Junior Level provides a formal opportunity for students to create an academic, professional, or artistic product that demonstrates their ability to apply multiple disciplinary perspectives in the context of their area of study. Requiring the capstone within the last fifteen hours and at a 400 level enables students to demonstrate both the breadth and depth of a distinctive PFW Degree. This demonstration helps students articulate their unique knowledge and skills to external constituents. In addition, the collection, assessment, and reporting of student learning in the Capstone provides the opportunity to enhance PFW's institutional image as it demonstrates high quality high impact degrees. Together, the curricular elements help PFW Faculty define the PFW Brand based on the attributes of PFW Graduates.

Conclusions and Additional Needs for all PFW Baccalaureate Graduates:

Demonstrating achievement of our learning outcomes and communicating that achievement to external constituents provides advantages at both an individual student level and at the institutional level.

At the student level, the completion, evaluation, and reflection of multiple signature assignments hones knowledge and skill development and provides evidence of student achievement of learning outcomes. The emphasis signature assignments place on communicating knowledge orally and in writing prepares students to demonstrate their achievement of essential competencies and expected outcomes to external audiences.

At the institutional level, assessing and publically communicating student learning at the critical points identified in the general education program and integrating that assessment with the programmatic assessment presently being done at the departmental level provides the opportunity to communicate the distinctiveness of the PFW Curriculum, its alignment with workforce needs to external constituents, and the quality of our graduates. Further, this type of focused communication strategy begins to operationalize the Metropolitan Mission of Purdue Fort Wayne as it demonstrates that we are preparing a professional workforce consistent with the professional and technical workforce needs of the Fort Wayne and Northeast Indiana region.

The proposed changes to general education address most of the outcomes employers expect students to demonstrate and the competencies employers expect students to possess upon graduation. However, general education is a small part of the formal curriculum and the PFW General Education Program does not emphasize some of the expected competencies and learning outcomes. Specifically, embedding digital technology and/or some type of applied development of programming skills, professionalism and applied ethics in the context of expectations of specific professions, exposure to high performance teaming in a professional context, and applying specific disciplinary knowledge to solve real-world problems are considerations for programs and majors across the institution.

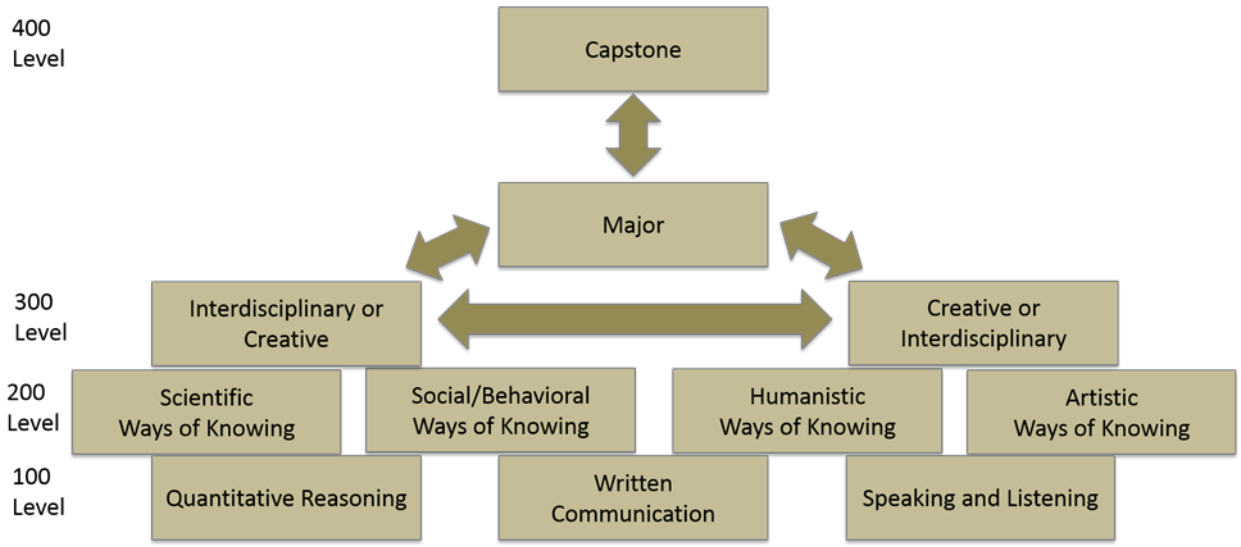
The intent of the work to date is to provide our faculty a starting place for discussion. The planned town-hall meetings will serve to build on this foundation to arrive at a collective vision of a distinctive PFW Baccalaureate Degree.

References:

Hart Research Associates (2015). "Falling Short? College Learning and Career Success". Hart Research Associates: Washington, DC

National Association of Colleges and Employers (2017). "Job Outlook 2018). NACE: Bethlehem, PA.

Appendix A: PFW Proposed General Education Model:



The Communicative Role of Assessment in Demonstrating the Utility of Liberal Arts in Comprehensive Regional Universities

"The often forgotten role of assessment as communication might be among the most important for the preservation of the comprehensive mission of IPFW and is one that we fully control. It is also intentionally designed into our assessment strategy."

Matthew Sigelman (CEO of Burning Glass Technologies) argued in an essay published by Inside Higher Education that the debate over liberal arts versus vocationalism is lazy. He states, "…liberal arts majors are not as badly prepared as people fear – and graduates with other majors may be less prepared than they believe." This statement is probably not very provocative for higher education faculty as we are accustomed to touting the American Baccalaureate degree and its unique blending of liberal, general, and specialized knowledge as a primary strength of undergraduate education. However, communicating this story to external constituents – especially legislators, potential employers, and prospective students and their families is not a strength of most higher education institutions.

Effectively communicating what students know and can do as a result of their education (especially for students graduating in majors that skew more to the liberal arts than vocation or profession) is especially important in the current political and social environment for public comprehensive universities. This new environment is, perhaps, best defined in a 2002 statement by North Carolina Governor Pat McCrory, who stated in an interview with Bill Bennett:

> So I'm going to adjust my education curriculum to what business and commerce needs to get our kids jobs as opposed to moving back in with their parents after they graduate with debt," McCrory said, adding, "What are we teaching these courses for if they're not going to help get a job. (http://www.huffingtonpost.com/2013/02/03/pat-mccrory-college_n_2600579.html)

McCrory's statement is specifically positioned to drive the idea of utility or vocationalism as the determinant of public higher education funding. But, if taken at its face as a curriculum aligned "…to what business and commerce needs to get our kids jobs..." this perception of utility to meet the market demand is incomplete. Mr. Sigelman states (based on his company's analysis of the skills employers value most and are most difficult to find) that "Across the full spectrum of jobs, what employers seem to call for, above all else, are foundational skills like writing, research, analysis, critical thinking, and creativity (https://www.insidehighered.com/views/2016/02/08/debate-over-liberal-arts-vs-vocationalism-lazy-one-essay). These are the same skills liberal arts faculty tout as hallmarks of students completing their degrees. **Therefore, an opportunity exists to demonstrate the value of liberal education from an employment perspective through the communication of assessment findings to external constituents.** For this reason, the IPFW Assessment Report asks departments to describe how they are communicating what students know and can do to external constituents.

Helping students describe what they know and can do to prospective employers is something many faculty do. For example, Andy Downs has discussed how he encourages students to list the skills they have to help prospective employers understand the value of hiring a student with a degree in political science. **However, at the program, college, and university levels, data driven communications that are grounded in high quality and rigorous assessment to promote the quality of our graduates as**

measured by achievement of student learning outcomes has the potential to demonstrate that the knowledge and skills employers demand (e.g. writing, research, analysis, critical thinking, and creativity) are available through graduates across a range of majors. The often forgotten role of assessment as communication might be among the most important for the preservation of the comprehensive mission of IPFW and is one that we fully control. It is also intentionally designed into our assessment strategy.

Carefully constructed and executed, summative aspects of programmatic assessment of student learning forms the type of evidential foundation employers desire to understand how graduates of a program are prepared to contribute to the success of the organizations employing our graduates. Formative programmatic assessment builds on this foundation to inform departments and programs how student learning relative to the stated outcomes might be further enhanced through curricular interventions and innovations. As this type of assessment is shared with external constituents it serves the valuable role of demonstrating institutional commitment to ensuring that current and future graduates are prepared to meet the increasingly challenging needs of future employers.