Actions and Status of Improvement Related to Each Program Outcome (for all of your programs) for your most recent assessment cycle

Progarm Name: BTECH in Architectural Technology

Program Outcome #1:

Bachelor's degree graduates can demonstrate mastery of pragmatic and conceptual solutions to modern-day design

roblems in areas related to architecture

Outcomes across the curriculum. One outcome of the project was an understanding of the need to revisit program

NOTE: in the fall of 2012, three faculty from the department participated in a workshop project with AIR to map Program

mple: A Locally Developed Exam (LDE) was conducted during Fall 2011 for students enrolled in six sections of EDU 4202 (n=200). The LDE was developed by the department assessment committee consisting of Professor Smith Professor Li, and Professor Doe. Data collection was overseen by Professor Doe and all faculty who administered the kam provided the exam data and samples of student work to Professor Doe. Professor Doe completed the data nalysis and disseminated the results to the assessment committee members, and the department chair

Additional statements would be added for additional instruments used, but the focus is on the program-level

From Fall 2011 to Spring 2012, the department conducted a series of faculty workshops and surveys to assess the need for changes to the Bachelor of Technology curriculum. The full time faculty and some adjunct faculty participated in this participated in the faculty of the bachelor of Technology curriculum. The full time faculty and some adjunct faculty participated in this participated in the faculty of the bachelor of Technology curriculum. The full time faculty and some adjunct faculty participated in this participated in the faculty of the bachelor of Technology curriculum. The full time faculty and some adjunct faculty participated in this participated in the faculty of the faculty of the faculty of the bachelor of the bacheloassessment and visoning for a new curriculum, led by the chair, Prof. Smith, Prof. Dikigorpoulou, and Prof. Bouratoglou In addition to faculty surveys, student surveys assessed possible options for new courses, adjustments to the sequence and  $specialization\ in\ the\ curriculum,\ all\ of\ which\ impacted\ the\ ability\ of\ the\ students\ to\ master\ pragmatic\ and\ conceptual$ solutions to modern-day design problems.

#### Action: (The action item that is being implemented to improve PO#\_)

Sample: After reviewing assessment results, faculty determined that they need to ensure that students perform a thorough analysis of experimental data, including identification of trends

 $With approval of the Major Curriculum \, Modification \, Proposal, the \, department \, has \, begun \, implementing \, the \, new \, department \, has \, begun \, implementing \, the \, new \, department \, has \, begun \, implementing \, the \, new \, department \, has \, begun \, implementing \, the \, new \, department \, has \, begun \, implementing \, the \, new \, department \, has \, begun \, implementing \, the \, new \, department \, has \, begun \, implementing \, the \, new \, department \, has \, begun \, implementing \, the \, new \, department \, has \, begun \, implementing \, the \, new \, department \, has \, begun \, implementing \, the \, new \, department \, has \, begun \, implementing \, the \, new \, department \, has \, begun \, implementing \, the \, new \, department \, has \, begun \, implementing \, the \, new \, department \, has \, begun \, implementing \, the \, new \, department \, has \, begun \, implementing \, the \, new \, department \, has \, begun \, implementing \, has \, begun \, implementing \, has a \, department \, has \, begun \, implementing \, has \, begun \, has \, begun \, implementing \, has \, begun \,$ curriculum in Spring 2013, including updated assignments based on contemporary design problems, additional courses in design and building technoloy that address the latest advances of materials and assemblies, design process, digital fabrication techniques, and building performance.

#### Rationale: (Based on the findings from the results of the assessment relating to PO#\_)

Sample: Faculty feedback from the assessment report form was obtained during the meeting held on January 28, 2012. All department faculty were in attendance and discussed the possible methods that may be used to increase student achievement. There was consensus among the faculty to engage in the implementation of the action(s) stated

Populate this area with the statistics to support your rationale (e.g., \_\_% of the students who took the locally rtment standard for this progra

In the curriculum proposal, which was approved by the full time faculty on Feb 23, 2012, Prof. Dikigorpoulou summarized ment of the deficiencies of the former curriculum with this quote from Raymond Kogan: "Today, monumental changes are affecting the building industry. The trends include building information modeling (BIM), integrated project delivery (IPD) and sustainability." The modification notes that these trends, when viewed collectively, are creating a major transformation in architecture and the building industry. When one considers the newly expanded CUNY requirement in assessment, learning objectives and the general education core it is clear that now is the time that the department of architectural technology must also transform the curriculum to meet these challenges. The emphasis of the transformation is stronger curriculum with skills in critical thinking, complex problem solving, informed decision making, and active learning through design prototyping, visualization and communication. The new courses all incorporate the new CUNY standards, use of more and newer software, expanded learning through technology derived from analog or hand designed beginnings, ease of use of production equipment, knowledge of advanced material science and learning through

#### tatus of implementation: (Current status of how this action is implemented relating to PO#)

mple: Since Fall 2012, faculty have introduced lectures on the topics of measurement methods and experimen design along with in-class exercises for EDU 3155 and EDU 4202. In these courses, faculty discuss quantities used to assess trends in data. For instance, faculty emphasize how to express central tendencies and variation of a data set and how polynomial fit is utilized to determine the best fit for a data set. In-class exercises further reinforce this subject area

The new BTECH curriculum was introduced in Spring 2013 for the first time. Some courses will be offered for the first time in the coming Spring 2014 as students complete the new third year courses that are pre-requisites for the fourth year courses. In addition, new course content continues to be developed to address the very important, current issue of design for resiliency in Post-Sandy New York. Three studios are currently being offered testing initial assignment development

#### Re-Assessment: (The data collection used to evaluate your improvement action(s) for PO#\_)

mple: Students in EDU 4202 will be assessed during Fall 2014 to determine the effectiveness of the improvement strategies implemented. All sections will be included in the sampling design using a locally developed exam with a test blueprint. Professor Smith will work with the office of Assessment and Institutional Research to develop a scannable and collect all of the data for the sections of the course offering in the fall. The expected sample size will b pproximately 200 students. Exemplars of student work will be maintained on the department computer and a cop hared with the Office of Assessment and Institutional Research as a back-up for the assessment documenta

As the new courses start running, the Course Review Committee will implement an assessment process to measure the ment of the students towards the mastery of pragmatic and conceptual solutions to modern-day design problems.

#### Program Outcome #2:

### ment Data Collection Time Period, Course(s) Used and Faculty Involved in Data Collection

mple: A Locally Developed Exam (LDE) was conducted during Fall 2011 for students enrolled in six sections of EDU 4202 (n=200). The LDE was developed by the department assessment committee consisting of Professor Smith Professor Li, and Professor Doe. Data collection was overseen by Professor Doe and all faculty who administered the kam provided the exam data and samples of student work to Professor Doe. Professor Doe completed the data

Additional statements would be added for additional instruments used, but the focus is on the program-level

tudents in this program have greater opportunities in employment and in advanced education at the graduate level as a sult of the base knowledge gained at City Tech.

nalysis and disseminated the results to the assessment committee members, and the department chair

In Spring 2012 course reviews were conducted for ARCH 1130 Building Technology I and ARCH 1230 Building Technology II to assess the students base skills and knowledge critical to success in the profession: architectural drawing in diverse digital platforms, materials and assemblies of construction, and construction documentation. The following sections participated in the review: ARCH 1130: 9545, 9546, 9547, 9548, 9549 (approx 100 students total) ARCH 1230: 9570, 9572, 9574, 9576, 4128 (approx 90 students total). The Course Review Committee including Profs Maldonado, Edwards, Aptekar, and Conzelmann. With Professor Montgomery (Course Coordinator) coordinating the effort, each professor collected samples of a range of student drawing assignments (3-4 per project, 6 projects typical for each course) Samples were reviewed initially in April 2012 by review committee with initial feedback. This was followed by a formal presentation and review by full time faculty with comments and discussion in May 2012. Review committee issued a final review report with recommendations for improvement.

### Action: (The action item that is being implemented to improve PO#\_)

mple: After reviewing assessment results, faculty determined that they need to ensure that students perform a thorough analysis of experimental data, including identification of trends.

 $The \ review \ committee \ recommended \ a \ number \ of \ adjustments \ to \ the \ courses \ to \ improve \ the \ skill \ and \ knowledge \ of \ adjustments \ to \ the \ courses \ to \ improve \ the \ skill \ and \ knowledge \ of \ adjustments \ to \ the \ courses \ to \ improve \ the \ skill \ and \ knowledge \ of \ adjustments \ to \ the \ courses \ to \ improve \ the \ skill \ and \ knowledge \ of \ adjustments \ to \ the \ courses \ to \ improve \ the \ skill \ and \ knowledge \ of \ adjustments \ to \ the \ courses \ to \ improve \ the \ skill \ and \ knowledge \ of \ adjustments \ to \ the \ courses \ to \ improve \ the \ skill \ and \ knowledge \ of \ adjustments \ the \$ architectural drawing in diverse digital platforms, materials and assemblies of construction, and construction documentation. These included: revising the drawing format to reflect industry standard format, coordinating assignments so that each assignment is one part of a construction documentation process, focusing case study for BTECH I on wood frame construction to improve clarity of teaching structural principles. The Ford Foundation was recomi as a case study subject for BTECH II. The use of digital software was recommended to focus equally on 2 dimension. nended to focus equally on 2 dimensional and 3 dimensional drawings and models.

## Rationale: (Based on the findings from the results of the assessment relating to PO#\_)

Sample: Faculty feedback from the assessment report form was obtained during the meeting held on January 28, 2012. All department faculty were in attendance and discussed the possible methods that may be used to increase student achievement. There was consensus among the faculty to engage in the implementation of the action(s)

Populate this area with the statistics to support your rationale (e.g., % of the students who took the locally developed exam met or exceeded the department standard for this program outcome)

assess trends in data. For instance, faculty emphasize how to express central tendencies and variation of a data set

tatus of implementation: (Current status of how this action is implemented relating to PO# $\_$ Sample: Since Fall 2012, faculty have introduced lectures on the topics of measure lesign along with in-class exercises for EDU 3155 and EDU 4202. In these courses, faculty discuss quantities used to

Since Spring 2012, the actions have been implemented. The assignment format was adjusted to reflect industry standard format. The assignments are coordinated to sequence one to the next, with the resulting drawing set reflected a more complete documentation of the case study. The BTECH I major case study was changed to a wood frame structure. The Ford

Foundation was introduced as a new case study in the BTECH II course. The focus of the digital drawing shifted to equally

Faculty feedback from the Course Review Committee report was obtained during the faculty meeting held on May 31,

implement the actions stated above.

emphasis 2-dimensional and 3-dimensional drawing and modeling.

for comment and discussion on further adjustments to the course.

2012. A majority of department full time faculty were in attendance and discussed possible methods to increase student achievment in construction documents and computer applications. There was clear concensus among the faculty to

and how polynomial fit is utilized to determine the best fit for a data set. In-class exercises further reinforce this e-Assessment: (The data collection used to evaluate your improvement action(s) for PO#)

ample: Students in EDU 4202 will be assessed during Fall 2014 to determine the effectiveness of the improvemen strategies implemented. All sections will be included in the sampling design using a locally developed exam with a test blueprint. Professor Smith will work with the office of Assessment and Institutional Research to develop a scannable and collect all of the data for the sections of the course offering in the fall. The expected sample size will be approximately 200 students. Exemplars of student work will be maintained on the department computer and a copy shared with the Office of Assessment and Institutional Research as a back-up for the assessment documentation.

The Course Review Committee will conduct a followup review of ARCH 1130 and ARCH 1230 on a regular cycle, starting in Spring 2014. A rubric will be developed to assess the student work for evidence of the breadth of knowledge of architectural drawing in diverse digital platforms, materials and assemblies of construction, and construction documentation. Examples of student work will be collected and reviewed by the Course Review Committee and the scores from the rubric collected in a scannable format consistent with the formats of the office of Assessment and Institutional Research. The analysis of the review results with be studied by the Review Committee and presented to the full time faculty

## Program Outcome #3

#### uccessful graduates develop their own inherent approach to design, professional ethics, impact upon the built nvironment and the role of the architect in society.

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## Action: (The action item that is being implemented to improve PO#\_)

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As the new courses start running, the Course Review Committee will implement an assessment process to measure the achievement of the students towards the the development of the students' inherent approach to design, professional ethics, impact upon the built environment, and the role of the architect in society