

**NEW YORK CITY COLLEGE OF TECHNOLOGY**

THE CITY UNIVERSITY OF NEW YORK

**MAJOR CURRICULUM MODIFICATION PROPOSAL**

**for**

**YEARS ONE AND TWO**

2016 09 30

Final Revision 02: November 21, 2016

**Sanjive Vaidya**

**Chairperson**

Prepared by: Professors Bouratoglou, Dikigoropoulou, King, Duddy, Mishara, Anzalone, Montgomery

**Table of Contents**

3 **Curriculum Modification Form**

4-11 **Description of Major Modifications and Rationale**

12-16 **New Course proposal Form and Course Outline**

17-18 **New Course Proposal Checklist**

19-25 **New Course Outline: ARCH 1101 Introduction to Architecture**

26-51 **Modified Course Outlines of Existing Courses**

52-55 **Minutes from Department Meeting**

56-58  **Consultation with Affected Departments**

59-60  **Letter from Academic Dean**

61-64 **Library Resources and Information Literacy Form**

65-68 **CHANCELLOR'S REPORT – Changes to Degree Programs**

69-71 **CHANCELLOR'S REPORT – New Courses**

72-83 **CHANCELLOR'S REPORT – Changes to Existing Courses**

New York City College of Technology, CUNY

CURRICULUM MODIFICATION PROPOSAL FORM

This form is used for all curriculum modification proposals. See the [Proposal Classification Chart](http://openlab.citytech.cuny.edu/collegecouncil/files/2014/08/2013-10-09-Proposal_Classification_Chart.pdf) for information about what types of modifications are major or minor. Completed proposals should be emailed to the Curriculum Committee chair.

|  |  |
| --- | --- |
| **Title of Proposal** | **Architectural Technology Major Curriculum Modification Proposal for Years One and Two** |
| **Date** | **Nov 13 2016** |
| **Major or Minor** | **Major** |
| **Proposer’s Name** | **Sanjive Vaidya** |
| **Department** | **Architectural Technology** |
| **Date of Departmental Meeting in which proposal was approved** | **September 22, 2016 and September 27, 2016** |
| **Department Chair Name** | **Sanjive Vaidya** |
| **Department Chair Signature and Date** | **2016 09 30** |
| **Academic Dean Name** | **Kevin Hom** |
| **Academic Dean Signature and Date** | **2016 09 30** |
| **Brief Description of Proposal**  (Describe the modifications contained within this proposal in a succinct summary. More detailed content will be provided in the proposal body. | **The modifications in this proposal are changes to the first two years of our current degree programs. The changes include one new course, integrating content to allow the merging of four courses into two courses.** |
| **Brief Rationale for Proposal**  (Provide a concise summary of why this proposed change is important to the department. More detailed content will be provided in the proposal body). | **This proposal is a preliminary response to our department’s pursuit of accreditation by the National Architectural Accreditation Board (NAAB) and anticipates a future application for a new degree program.** |
| **Proposal History**  (Please provide history of this proposal: is this a resubmission? An updated version? This may most easily be expressed as a list). | **This is the first revision of the proposal initially submitted on Sept 30, 2016. This revision responds to the comments and suggestions of the subcommittee of the Curriculum Committee.** |

**DESCRIPTION OF MAJOR MODIFICATIONS AND RATIONALE**

Upon the completion of our 10 Year Review self study and following the recommendation of our Dean and external reviewer, the faculty of the Department of Architectural Technology have agreed to pursue accreditation through the National Architectural Accreditation Board for a Bachelor of Architecture. This new degree will be in addition to our current degree programs; we will continue to maintain the existing AAS and Bachelor of Technology degrees, with modifications so that all the degrees coordinate where necessary. Each degree serves our students’ varied needs and each offers a different path into the field of architecture and its allied industries. This proposal is the result of our department’s analysis of the changes to our existing curriculum that will enhance our ability to achieve accreditation.

The Department of Architectural Technology is proposing a restructuring of its curriculum of years one and two to prepare for a future alignment with National Architectural Accreditation Board (NAAB) requirements for an accredited Bachelor of Architecture (BARCH) degree, a new degree program that is in development for a subsequent submission. There are currently 59 institutions listed on the NAAB website[[1]](#footnote-1) offering an accredited BARCH degree or are current BARCH candidate programs, including 8 in New York State. CUNY currently offers one accredited BARCH program at City College. The CUNY Chancellor, City Tech’s President and Provost, and the Dean of the School of Technology and Design are all supportive of City Tech’s Department of Architectural Technology pursuit of a BARCH accredited degree program. NAAB states each BARCH program must require a minimum of 150 semester credit hours, with at least 45 credits dedicated to General Studies, and 10 credits to Optional Studies. Our department is working towards a degree program that will require approximately 160 credits total, earned over a 5 year curriculum, a standard requirement that meets New York State requirements[[2]](#footnote-2) and is similar to the requirements of City College (160 credits), Syracuse University (162 credits), SUNY Alfred State (157 credits), and NYIT (160 credits).

Our department offers the most accessible architectural education in the metro area, with competitive tuition and a large enrollment capacity.  NYCCT’s Department of Architectural Technology is known for its workplace-oriented curriculum, leading edge technologies and student-focused environment, providing opportunities for students to engage in real-world community service projects. The introduction of the accredited degree will offer our diverse students a stronger path to licensure, increased recognition in the profession, and strengthen their employment opportunities in architectural practice.

This curriculum proposal for years one and two will provide a stronger basis for all students in the department with its emphasis on Integrated Learning and its application of increased general education as well as scholarship of teaching and learning. This modification puts in place a structure that seeks to prepare as broadly as possible the number of students from our current enrollment that will be eligible for the new BARCH degree. Briefly stated, the changes will involve:

1. Combine ARCH 1110 Foundations I and ARCH 1191 Visual Studies I courses into one course, with the course content merged.
2. Combine ARCH 1210 Foundations II and ARCH 1291 Visual Studies II courses into one course, with the course content merged.
3. Introduce a new course, Introduction to Architecture, (ARCH 1101).
4. Modify ARCH 1121 History of Architectural Technology, the course description, and the credit hours/contact hours.
5. Expand AAS capstone requirement to include all BTech Electives.
6. Replace MAT 1375 with MAT 1275 as the required Gen Ed mathematics requirement.

Technical content has historically been a central feature of our AAS degree when it was focused on training architectural technicians and CAD drafters.[[3]](#footnote-3) This proposal seeks balance between this vocational legacy and the professional preparation. These changes maintain and enhance the viability of the AAS degree as a stand-alone degree that offers our students a strong foundation in hard skills, soft skills, and knowledge of the discipline that will allow graduates to pursue employment or further education.

The proposed changes to the AAS provide improvements for the benefit of all AAS and BTECH students. The changes are as follows:

DETAILED RATIONALE for AAS CHANGES:

Changes #1,2:

**Combining ARCH 1110 Foundations I and ARCH 1191 Visual Studies I**, and **ARCH 1210 Foundations II and ARCH 1291 Visual Studies II** is a change that addresses a number of important issues. First, this change integrates traditional linked studio skills and knowledge into one course rather than separating them into distinct courses. Second, the merger brings these courses into a consistent allocation of credits and contact hours with the other AAS studio courses (Studio III and Studio IV). Third, this merger of the courses addresses scheduling challenges for the students and streamlines course content that has been linked through co-requisite requirements. Currently, Foundations and Visual Studies sections are taught as co-requisites where students are required to enroll in specific linked sections of the two courses, meaning the same group of students must be enrolled in the same two sections of Foundations and Visual Studies. This is essential to the courses because the content of Visual Studies has been developed to directly relate and support the projects being generated in Foundations. Intense and rigorous coordination is necessary. Typically, a digital skill/tool is taught in Visual Studies course and then applied and reinforced in Foundations.

The intention behind combining the two courses is to create a more fluid and synergistic interaction between the course content. Originally it was necessary to separate the two in order to refine the content and tools being introduced in the digital modules allowing for the evolution of an outline of a specific sequence of exercises that support the Foundation studio. Now that the courses have been launched and the instructors have been introduced and are familiar with the dual content and intention behind the courses it is possible to merge them into a single course which will allow better reinforcement of learning objectives and skills. Additionally, merging the courses will prevent students from accidentally enrolling in the wrong linked section, which has been an ongoing challenge for the department.

The credit and meeting hours of the merged course will match the existing total credit and contact hours. The merged course will be 5 credits, with 1 classroom/lecture hour and 8 lab hours totaling 9 contact hours.

Change #3:

**Arch 1101** **Introduction to Architecture**, will address fundamental needs of our incoming students. First, it will provide first hand experience of architecture by using New York City as a laboratory for learning. This place-based learning process is critical to address many students’ lack of prior knowledge of the discipline, as well as their skill of looking and seeing, and careful observation of the built environment. It will build the students’ foundational knowledge of the city and its key structures so they can be used as a reference and context for further exploration as they progress in the curriculum. The fieldwork will include sketchbook documentation that will help develop the students drawing skills. In addition to the place-based component, this course will introduce the students to reading, analyzing, and making architectural drawings. Finally, it will provide an overview of the profession and our degree programs to help students navigate their path toward a degree well suited to their goals.

Change #4:

**ARCH 1121 History of World Architecture to 1900** existing course rewritten; change of course name,and hours will incorporate a more inclusive and diverse treatment of architectural history, important both to engage our diverse student population but also to provide them with a worldly view of culture and architecture’s relationship to culture. This course will also integrate inquiry-based learning pedagogy with the increase of lab time.

Change #5:

**Expand AAS capstone requirement** to include all BTech Electives.

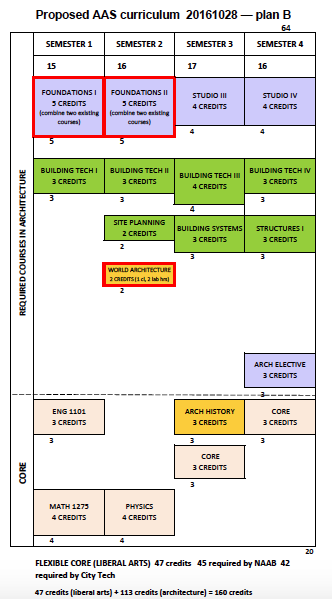
Change #6: Replace MAT 1375 with MAT 1275 to better align the mathematical content with the requirements of the architectural courses.

**Table 2: Comparison of Existing and Proposed Courses**

|  |  |  |  |
| --- | --- | --- | --- |
| Department of Architectural Technology **PROPOSED MAJOR COURSE CHANGES** | | | |
| Original Course Description | Proposed Course Description | Major change | Rationale |
|  | **ARCH 1101**  **INTRODUCTION TO ARCHITECTURE**  1 cl hr, 4 lab/studio hrs, 3 credits  **Course Description:** Understanding architecture is achieved by developing a visual literacy of New York City’s built environment. Using the city as a living laboratory, students explore concepts of design, composition, and construction by sketching and writing about their direct experience of buildings. Accompanying lectures focus on freehand drawing techniques,basic drafting skill and graphic standards, concepts of composition, writing about buildings and their construction, and reading architectural drawings. Students develop graphic skills and the basic foundation to talk, write, and graphically express architecture and its construction.  **Prerequisites:** none | **New Course** | **This course provides scaffolded introduction to degree programs through place-based learning and drawing and analysis.** |

|  |  |  |  |
| --- | --- | --- | --- |
| Department of Architectural Technology **PROPOSED MAJOR COURSE CHANGES** | | | |
| Original Course Description | Proposed Course Description | Major change | Rationale |
| **ARCH 1110**  **ARCHITECTURAL DESIGN I: FOUNDATIONS**  6 lab/studio hrs, 3 credits  **Course Description:** The first course in the one-year foundation sequence, which increases the student’s ability to perceive visual cues, create visual design, formulate concepts, and render ideas in two or three dimensions. Students will use a combination of hand and digital skills to aid in the creation and interpretation of three dimensional objects and space, and the delineation of the same using standard projection systems.  **Prerequisites:** none  **Co-requisites:** ARCH 1191 | **ARCH 1112**  **ARCHITECTURAL DESIGN I: FOUNDATIONS and VISUAL STUDIES**  1 cl hr, 8 lab/studio hrs, 5 credits  **Course Description:** A first-year foundational course that increases students’ ability to perceive visual cues, create visual design, formulate concepts, and render ideas in two or three dimensions. Students use a combination of hand and digital skills to aid in the creation and interpretation of three dimensional objects and space, and the delineation of the same using standard projection systems. The Visual Studies component of the course equips students to make aesthetic evaluations and translate information into graphic representations and visual designs.  **Prerequisites:** none  **Pre- or corequisites:** none | **Modified Course incorporates material from linked co-requisite course.**  **Course Name Change**  **Credits/Hours change**  **Course outline change**  **Changed pre- or**  **corequisite** | **Provides for improved integration of design and visualization skills.**  **Resolves significant scheduling and registration challenges.**  **Reflects course integration and also provides support for course by providing scaffolded building of skills and knowledge.** |
| **ARCH 1191**  **VISUAL STUDIES I**  1 cl hrs, 2 lab/studio hrs, 2 credits  **Course Description:** Visual Studies I is taken in tandem with ARCH 1110: Architectural Design I: Foundations to introduce the language of architectural representation and visualization, providing students with the techniques and skills to perceive visual cues, make aesthetic evaluations, translate information into graphic representation, create visual design, and formulate and render concepts in two or three dimensions. This course introduces basic skills for the manipulation of freehand and digital images, models, and data, and includes an introduction to computer systems, file management, word processing and spreadsheets, scanning and image editing.  **Prerequisites:** None  **Co-requisites:** ARCH 1110 |

|  |  |  |  |
| --- | --- | --- | --- |
| Department of Architectural Technology **PROPOSED MAJOR COURSE CHANGES** | | | |
| Original Course Description | Proposed Course Description | Major change | Rationale |
| **ARCH 1210**  **ARCHITECTURAL DESIGN II: FOUNDATIONS**  6 lab/studio hrs, 3 credits  **Course Description:** The second course in the one year foundation sequence, which increases the student’s ability to perceive visual cues, create visual design, formulate concepts, and render ideas in two or three dimensions. Students will use a combination of hand and digital skills to aid in the creation and interpretation of three dimensional objects and space, and the delineation of the same using standard projection systems.  **Prerequisites:** ARCH 1110 and ARCH 1191 both with a grade of C or higher  **Co-requisites:** ARCH 1291 | **ARCH 1212**  **ARCHITECTURAL DESIGN II: FOUNDATIONS and VISUAL STUDIES**  1 cl hr, 8 lab/studio hrs, 5 credits  **Course Description:** A first-year foundational course that advances students’ ability to perceive visual cues, create visual design, formulate concepts, and render ideas in two or three dimensions. Students use a combination of hand and digital skills to aid in the creation and interpretation of three dimensional objects and space, and the delineation of the same using standard projection systems.The Visual Studies component of the course builds on the student's knowledge of architectural representation and visualization and focuses particularly on: precise crafting of physical and analogue models, architectural presentations, analogue and digital rendering techniques.  **Prerequisites:** ARCH 1112 or ARCH 1110 and ARCH 1191 with a grade of C or higher.  **Co-requisites:** none | **Modified Course incorporates material from linked co-requisite course.**  **Course Name Change**  **Credits/Hours change**  **Course outline change**  **Changed prerequisite**  **Elimination of**  **co-requisite** | **Provides for improved integration of design and visualization skills.**  **Resolves significant scheduling and registration challenges.**  **Reflects course integration.** |
| **ARCH 1291**  **VISUAL STUDIES II**  1 cl hrs, 2 lab/studio hrs, 2 credits  **Course Description:** Visual Studies II builds on the knowledge of architectural  representation and visualization obtained in ARCH 1111 and ARCH 1191  This course is taken in tandem with ARCH 1211 (Architectural Design II: Foundations), and focuses particularly on: precise crafting of physical and analogue models and architectural presentations, analogue and digital rendering techniques, and representation of geospatial information. The course provides the tools for students in their design work by strengthening their skills visually, verbally, and graphically so they may demonstrate their fluency in and understanding of key design vocabulary, concepts, and visual techniques.  **Prerequisites:** ARCH 1110 and ARCH 1191 both with a grade of C or higher  **Co-requisites:** ARCH 1210 |



**New Course Proposal Form and Course Outline**

New York City College of Technology, CUNY

NEW COURSE PROPOSAL FORM

This form is used for all new course proposals. Attach this to the [Curriculum Modification Proposal Form](http://openlab.citytech.cuny.edu/collegecouncil/files/2014/08/2013-10-10-Curriculum_Modification_Proposal_Form.docx) and submit as one package as per instructions. Use one New Course Proposal Form for each new course.

|  |  |
| --- | --- |
| **Course Title** | INTRODUCTION TO ARCHITECTURE |
| **Proposal Date** | NOV. 14, 2016 |
| **Proposer’s Name** | MICHAEL DUDDY |
| **Course Number** | ARCH 1101 |
| **Course Credits, Hours** | 3 CREDITS, 1 cl hour, 4 lab hours |
| **Course Pre / Co-Requisites** | CUNY proficiency in Reading and Writing; or CUNY proficiency in Reading with co requisite of ENG 092W if part of a learning community; or for high school students enrolled through collaborative programs or City Poly High School who have not yet taken the SAT or completed Regents requirements, a PSAT score of 48 or higher in Verbal and/or Writing or successful completion of six units of high school English with an average of 80 or above and a high school recommendation. |
| **Catalog Course Description** | Understanding architecture is achieved by developing a visual literacy of New York City’s built environment. Using the city as a living laboratory, students explore concepts of design, and construction by sketching and writing about their direct experience of buildings. Accompanying lectures focus on freehand drawing techniques, basic drafting skills and graphic standards, composition, concepts of composition, writing about buildings and their construction, and reading architectural drawings. Students develop graphic skills and the basic foundation to talk, write, and graphically express architecture and its construction. |
| **Brief Rationale**  Provide a concise summary of why this course is important to the department, school or college. | This course provides scaffolded introduction to degree programs through place-based learning and drawing and analysis. |
| **TIPPS – Course Equivalencies**  Provide information about equivalent courses within CUNY, if any. | None |
| **Intent to Submit as Common Core**  If this course is intended to fulfill one of the requirements in the common core, then indicate which area. | N/A |
| **For Interdisciplinary Courses:**   * Date submitted to ID Committee for review * Date ID recommendation received   - Will all sections be offered as ID? Y/N | N/A |
| N/A |
| N/A |
| **Intent to Submit as a Writing Intensive Course** | N/A |

**COURSE OUTLINE:** See below.

For Library Resources and Information Literacy Form attached in index

**COURSE NEED ASSESSMENT:**

NEED FOR COURSE: This new course provides a critical scaffolded approach to the first year curriculum. The new course in the first semester, Introduction to Architecture, will address fundamental needs of all of our departments’ incoming students. First, it will provide first hand experience of architecture by using New York City as a laboratory for learning. This place-based learning process is critical to address many students’ lack of prior knowledge of the discipline, as well as their skill of looking and seeing, and careful observation of the built environment. It will build the students’ foundational knowledge of the city and its key structures so they can be used as a reference and context for further exploration as they progress in the curriculum. The fieldwork will include sketchbook documentation that will help develop the students drawing skills. In addition to the place-based component, this course will introduce the students to reading, analyzing, and making architectural drawings. Finally, it will provide an overview of the profession and our degree programs to help students navigate their path toward a degree well suited to their goals.

This course is anticipating requirements of a new degree program that will seek accreditation by the National Architectural Accreditation Board (NAAB.)

PHYSICAL REQUIREMENTS: This course will need a room equivalent to our current V305 hand drawing studio.

RELATIONSHIP TO OTHER COURSES: This course will provide a foundation for all courses in the first two years of our programs. It will provide a scaffolded approach to understanding the discipline, using observation as a tool for understanding, analyzing and making architectural drawings. It feeds into the History sequence, the Building Technology sequence, and supports the Design Foundations sequence.

FACULTY: The Department has full time faculty and part-time faculty with the required expertise to implement this course.

**COURSE DESIGN:**

COURSE CONTEXT: This course will be a required course for the AAS degree.

COURSE STRUCTURE:

This course is developed as three modules:

1. Place based module centered on “Experiencing Architecture”
2. A studio based component on “Analyzing Architecture”
3. A studio based component on “Drawing Architecture”

***Experiencing Architecture:*** This course is designed applying the pedagogy of Place-Based Learning. It will provide first hand experience of architecture by using New York City as a laboratory for learning. This place-based learning process is critical to address many students’

lack of prior knowledge of the discipline, as well as their skill of looking and seeing, and careful observation of the built environment. It will build the students’ foundational knowledge of the city and its key structures so they can be used as a reference and context for further exploration as they progress in the curriculum. The fieldwork will include sketchbook documentation that will help develop the student’s observational drawing skills.

***Analyzing Architecture:*** In addition to the place-based component, this course will introduce the students to reading and analyzing architectural drawings. This portion of the course will be studio based, where students will study existing architectural drawings through visual analysis overlays, studying geometry, solid and void, axial relationships, symmetry…

***Drawing Architecture:*** In this same studio environment, students will focus on basic orthographic projection, including plan, section, and elevation drawing.

Throughout the course, the instructor will provide an overview of the profession and our degree programs to help students navigate their path toward a degree well suited to their goals.

**PROGRAM LEARNING OUTCOMES:**

This course supports the AAS and BTECH program learning outcomes as it provides a foundational introduction to the skills and knowledge fundamental to the discipline. It will provide a clear platform to help students focus on their alignment of goals and ambitions and to test them against the demands of pursuing a career either in architectural practice or in an allied field.

**ONLINE:**

This course is not designed to be partially or fully online.

**NEW COURSE PROPOSAL CHECK LIST**

Use this checklist to ensure that all required documentation has been included. You may wish to use this checklist as a table of contents within the new course proposal.

|  |  |
| --- | --- |
| **Completed NEW COURSE PROPOSAL FORM** |  |
| * Title, Number, Credits, Hours, Catalog course description | X |
| * Brief Rationale | X |
| * TIPPS – Course Equivalencies | X |
| Completed [Library Resources and Information Literacy Form](http://openlab.citytech.cuny.edu/collegecouncil/files/2014/08/curriculum_modification_library_form.doc) | X |
| **Course Outline**  Include within the outline the following. | **X** |
| Hours and Credits for Lecture and Labs  If hours exceed mandated Carnegie Hours, then rationale for this | X |
| Prerequisites/Co- requisites | X |
| Detailed Course Description | X |
| Course Specific Learning Outcome and Assessment Tables   * Discipline Specific * General Education Specific Learning Outcome and Assessment Tables | X |
| Example Weekly Course outline | X |
| Grade Policy and Procedure | X |
| Recommended Instructional Materials (Textbooks, lab supplies, etc) | X |
| Library resources and bibliography | X |
| **Course Need Assessment.**  Describe the need for this course. Include in your statement the following information. | X |
| Target Students who will take this course. Which programs or departments, and how many anticipated?  Documentation of student views (if applicable, e.g. non-required elective). | X |
| Projected headcounts (fall/spring and day/evening) for each new or modified course. | X |
| If additional physical resources are required (new space, modifications, equipment), description of these requirements. If applicable, Memo or email from the VP for Finance and Administration with written comments regarding additional and/or new facilities, renovations or construction. | X |
| Where does this course overlap with other courses, both within and outside of the department? | X |
| Does the Department currently have full time faculty qualified to teach this course? If not, then what plans are there to cover this? | X |
| If needs assessment states that this course is required by an accrediting body, then provide documentation indicating that need. | X |
| **Course Design**  Describe how this course is designed. | X |
| Course Context (e.g. required, elective, capstone) | X |
| Course Structure: how the course will be offered (e.g. lecture, seminar, tutorial, fieldtrip)? | X |
| Anticipated pedagogical strategies and instructional design (e.g. Group Work, Case Study, Team Project, Lecture) | X |
| How does this course support Programmatic Learning Outcomes? | X |
| Is this course designed to be partially or fully online? If so, describe how this benefits students and/or program. | X |
| **Additional Forms for Specific Course Categories** | n/a |
| [Interdisciplinary Form](http://openlab.citytech.cuny.edu/collegecouncil/files/2014/08/Application-for-Interdisciplinary-Course-Designation.docx) (if applicable) | n/a |
| Interdisciplinary Committee Recommendation (if applicable and if received)\*  \*Recommendation must be received before consideration by full Curriculum Committee | n/a |
| [Common Core (Liberal Arts) Intent to Submit](http://openlab.citytech.cuny.edu/collegecouncil/files/2014/08/CommonCoreCourseSubmissionForm_4.2.12.doc) (if applicable) | n/a |
| Writing Intensive Form if course is intended to be a WIC (under development) | n/a |
| If course originated as an experimental course, then results of evaluation plan as developed with director of assessment. | n/a |
| **(Additional materials for** [**Curricular Experiments**](http://www.300jaystreet.com/college-council/curriculum_proposals/curricular-experiments)**)** | n/a |
| Plan and process for evaluation developed in consultation with the director of assessment. (Contact Director of Assessment for more information). | n/a |
| Established Timeline for Curricular Experiment | n/a |

**Department of Architectural Technology**

**ARCH 1101 INTRODUCTION TO ARCHITECTURE**

1 lecture hour and 4 lab/studio hours, 3 credits

**Course Description:** Understanding architecture is achieved by developing a visual literacy of New York City’s built environment. Using the city as a living laboratory, students explore concepts of design, composition, and construction by sketching and writing about their direct experience of buildings. Accompanying lectures focus on freehand drawing techniques, basic drafting skills and graphic standards, concepts of composition, writing about buildings and their construction, and reading architectural drawings. Students develop graphic skills and the basic foundation to talk, write, and graphically express architecture and its construction.

**Course context:** This course provides a scaffolded introduction to degree programs through place-based learning and drawing and analysis. Students are exposed to various styles of architecture and methods of construction found in the city.

**Prerequisites:** CUNY proficiency in Reading and Writing; or CUNY proficiency in Reading with co requisite of ENG 092W if part of a learning community; or for high school students enrolled through collaborative programs or City Poly High School who have not yet taken the SAT or completed Regents requirements, a PSAT score of 48 or higher in Verbal and/or Writing or successful completion of six units of high school English with an average of 80 or above and a high school recommendation.

**Attendance Policy:** No more than 10% absences are permitted during the semester. For the purposes of record, two lateness are considered as one absence. Exceeding this limit will expose the student to failing at the discretion of the instructor.

**Academic Integrity:** Students and all others who work with information, ideas, texts, images, music, inventions and other intellectual property owe their audience and sources accuracy and honesty in using, crediting and citation of sources. As a community of intellectual and professional workers, the college recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension and expulsion.

**Suggested Text:** Texts will be assigned according to the subject covered that day.

**Suggested Reference:** Varies depending upon the subject of the course

**Course requirements**: May vary depending upon course topic. Students will conduct research and present case studies as relevant to the materials and discussions presented in class and will write either a series of smaller papers or a semester term paper as determined by the professor.

**Grading:**   Module 1: Experiencing Architecture 50%

Module 2: Analyzing Architecture 20%

Module 3: Drawing Architecture 30%

|  |  |
| --- | --- |
| **General Education Learning Outcomes / Assessment Methods** | |
| **Learning Outcomes** | **Assessment Methods** |
| Upon successful completion of this course the student shall be able to: | To evaluate the students’ achievement of the learning objectives, the professor will do the following: |
| 1. Develop **Knowledge** from the range of architectural disciplinary perspectives presented in the course. | 1. **Review** student observations of site visits and lectures and assess written, graphic and oral reports. |
| 1. Utilize **Skills** and demonstrate knowledge needed to facilitate communication and critical thinking. | 1. **Assess** student research and critical thinking abilities by monitoring weekly progress of lab work and readings. |
| 1. **Integrate** knowledge and work productively to communicate ideas through oral, graphic and written media. | 1. **Assess** the students’ ability to integrate and communicate through peer and juried review of student presentations. |

|  |  |
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| **Course Intended Learning Outcomes / Assessment Methods** | |
| **Learning Outcomes** | **Assessment Methods** |
| Upon successful completion of this course the student shall be able to: | To evaluate the students’ achievement of the learning objectives, the professor will do the following: |
| 1. **Observe** with a critical eye and engage in discussion on the subject of the course. (Skill) | 1. **Review** student observationsand **Assess** the quality of critical thinking and contributions to discussions during oral and graphic presentations. |
| 1. **Research** and investigate deeply into a given subject so as to contribute to the growth of knowledge. (Skill) | 1. **Assess** student research abilities through written and graphic materials. |
| 1. **Synthesize and Apply** what is learned to synthesize understanding and to complete assignments given in the class. (Skill) | 1. **Assess** the students’ ability to synthesize apply what is learned from lab work and through the grading of assignments. |
| 1. **Communicate** effectively through presentations to the class using written oral and graphic media. (Skill) | 1. **Assess** the students’ ability to effectively present and communicate what is learned on a given subject. |
| 1. **Communicate** effectively using a vocabulary developed throughout the course. (Skill) | 1. **Assess** the students’ use of professional vocabulary during quizzes, oral presentations and written assignments. |

**Weekly Course Outline:** While the specific details of each section will differ all courses will follow this basic outline:

**Module 1: Experiencing Architecture**

**WEEK 1 Introduction: Vitruvian Triad**

Introduction to fundamental concepts of architecture and methods of looking at and evaluating buildings. Students will be introduced to basic sketching techniques for documenting the observations upon which they will build their skills in the course of the semester. Readings will reinforce and build their technical vocabulary.

Sample lesson: Students will sketch simple volumes from two- and three-dimensional sources. Students will overlay photographs to discover the horizon line and vanishing points.

**WEEK 2 Surfaces and Openings**

Through the exploration of building facades students will learn how building surfaces are opened for windows and doors. Students will learn technical terms associated with facades such as fenestration, soffit, cornice, string course, lintel, etc. by sketching them and labeling their sketches.

Sample lesson: Students will write a one-page description of the façade they have drawn, using the the terms they have learned.

**WEEK 3 Modules, Bays, and Rhythms**

Similar to “Surfaces and Openings,” this lesson will ask students to grasp concepts of organizational structures such as grids and repetitions through readings, demonstrations, and sketching assignments. Students will investigate building elements such as colonnades, bays, and loggias.

Sample lesson: Investigate the science of perspectival foreshortening through demonstration and practice. Examples of colonnades and gridded facades will be sketched from locations around Brooklyn.

**WEEK 4 Organization I: Symmetry**

Concepts of symmetry will be explored in historical examples and in actual buildings in downtown Brooklyn. Readings discussing the principles of classical symmetry will be assigned and discussed, followed by a lecture on the Renaissance church, villa, and palazzo. Students will be introduced to the classical orders.

Sample lesson: Students will sketch a classically-inspired building; identify the axes of symmetry, and label the features of the building. They will then write a one- to two-page description of their building identifying the major and minor axes and use the technical building vocabulary they have acquired thus far.

**WEEK 5 Organization II: Proportions**

Students will learn the principles of proportional systems through demonstrations supported by assigned readings. Students will analyze historic examples where such systems were used.

Sample lesson: Students will sketch pre-selected buildings in Brooklyn Heights (Borough Hall, for example) that clearly express proportional rigor. They will use the proportional system to scaffold their sketches and learn how these systems foreshorten from varying station points. In a short essay they will describe the proportional system as they see it and describe how the architect used it to organize the components of the building.

**WEEK 6 Organization III: Balance**

Many buildings are organized as an assembly of several masses, each of which exhibits its own symmetry and proportion. Students will be introduced to examples where buildings of complex mass are balanced and discover how the connections between the masses are visually resolved.

Sample lesson: Students will sketch a complex building from multiple points of view and identify the multiple symmetries and overall organizational structure of the building. Students will sketch details on from the building where symmetries meet and are resolved.

**WEEK 7 Organization IV: Hierarchy**

Buildings, both simple and complex, exhibit visual hierarchy. Students will be introduced to examples of ways in which buildings exhibit hierarchy and deploy elements to reinforce that hierarchy.

Sample lesson: Students will sketch both a simple and a complex building and in each case identify the hierarchy. In an essay, they will describe how the hierarchy and how the elements of the building are used to reinforce that hierarchy.

**WEEK 8 From Elevation to Plan**

Students will discover the correspondence between the elevation of a building, which they see, and the plan of the building, which they don’t. Examples from history will illustrate the interrelationship between plan, section, and elevation.

Sample lesson: Students will observe the four sides of a building, noting the openings, projections, bays, etc. They will sketch the plan of the perimeter of building based on their “best guess” by what they observed from the outside. They will then go inside and in a separate drawing sketch the plan. In separate drawings they will sketch multiple views of the interior space.

**Module 2: Analyzing Architecture**

**Week 9 Introduction to Site Planning**  
Develop awareness of our everyday practice of site planning principles though team activity and presentation. Concepts covered will include site observation, site inventory and analysis, principles of climate and the process of selecting the best site for a given use.   
  
Sample lesson: A Trip to the Beach.

**Week 10 Introduction to Structural Concepts**  
Develop an understanding of basic structural principles through observation and analysis of built structures. Concepts covered include compression and tension, long and short spans, cantilevers, structural grids, lateral stability and materials.  
  
Sample lesson: Blueprint reading. A review of blueprints of famous icons including the Statue of Liberty, the Eiffel tower, the St. Louis Arch, The Brooklyn Bridge and the Wright Brothers Plane. Complete a drawing assignment that reinforces structural principles.

**Week 11 Introduction to Building Construction and Assembly**  
Develop an understanding of the sequence of building construction and assembly through observation of buildings in NYC under construction.   
  
Sample lesson: Site visit and observation. Visit construction sites and document observations though photography & sketch. Review, interpret and analyze construction details. Research details & methods.

**Module 3: Drawing Architecture**

**Week 12 Introduction to Architectural Drawings: Plans and Elevation**  
Develop awareness and familiarity with drawing types used in the typical architectural practice. Students will review and practice the use of drafting strategies and tools introduced in ARCH 1110 and apply these tools to a more complex drawing problem. Concepts covered will include review of orthographic projection drawings, introduction architectural graphic standards and notation. Understand the co-relation between different drawing types. Understanding and applying the architectural scale.  
  
Sample lesson Part 01: Reading, matching and understanding plans elevations and sections of existing structures.

Sample Lesson Part 02: Drawing plans and elevations of a small existing structure. Apply architectural graphic standards.

**Week 13 Continuation Introduction to Architectural Drawings: Sections**

Students will learn to generate sectional architectural drawings. Different sectional drawings will be analyzed and graphic notation will be discussed in relation to expression of materiality; curtain wall vs. a masonry wall vs. wood frame etc.

Sample lesson: Extract a series of 5 sectional drawings referencing the plans and elevations drawn in the previous lesson. These drawings should reflect the distribution and relationship of interior space and apply standard graphic standards to reflect the tectonics of the structure.

**Week 14 Continuation Introduction to Architectural Drawings:**

Plan, elevation and section drawings generated by the students will be reviewed. Accuracy and legibility will be evaluated and discussed. Strategies for articulating drawings; applications of line weight, poche and textures will be discussed.

Sample lesson: refine all drawings to improve legibility, verify accuracy and application of architectural graphic standards.

**Week 15 Introduction to differentiating construction vs. design drawings**

Students will be introduced to concepts of graphic representation in relation to intention and desired communication. Students will observe, analyze discuss the difference between construction drawings and design drawings.

Sample lesson: Select one section drawing from the previous exercise, using it as a base generate two new drawings; one should be articulated as a construction drawing and the second as a design presentation drawings.

**Course Activities:**

Course format will include a combination of any of the following activities:

* **Field Trips / High Impact Learning Practices:**Field trips will look to visit existing buildings and construction sites, tour newly constructed buildings and urban spaces or visit institutions, including but not limited to museums, churches, or other colleges with discussions led by either the instructor or on-site experts in the field or the subject.
* **Lectures:**

Lectures will be given by a qualified instructor and if warranted invited guest lecturers or experts in the field or subject.

* **Activities:**

Students will participate in activities that provide them with the opportunity to apply what is learned in a given subject.

* **Research Activities:**

Students will be given directed readings and be required to correlate their readings with the lab exercises. Supplemental research will be encouraged to promote a greater analytical and critical understanding.

* **Presentations:**

Students will participate in written, oral and graphic presentation of course subjects and issues identified through their reading, writing, and lab work.

**Modified Course Outlines of Existing Courses**

Department of Architectural Technology

**ARCH 1112 ARCHITECTURAL DESIGN I: FOUNDATIONS AND VISUAL STUDIES**

1 lecture hour and 8 lab/studio hours, 5 credits

**Course Description:** A first-year foundational course that increases students’ ability to perceive visual cues, create visual design, formulate concepts, and render ideas in two or three dimensions. Students use a combination of hand and digital skills to aid in the creation and interpretation of three dimensional objects and space, and the delineation of the same using standard projection systems. The Visual Studies component of the course equips students to make aesthetic evaluations and translate information into graphic representations and visual designs.

**Course context:** This course is a required first step in the Design Studio sequence.

**Pre or Co-requisites:** none

**Required Text:** In the form of a reader:

1.Hannah, Gail Greet. Elements of Design: Rowena Reed Kostellow and the Structure of Visual Relationships, *pp.*44-57.

2. Elam, Kimberly. *Geometry of Design.* Pages 44-75*.*

3. Durer, Albrecht. *Of the Just Shaping of Letters.*

Web URL, PDF: <http://sean.gleeson.us/2006/03/08/durers-crazy-idea>

4. Benedict, William. *ARCH 121 SYLLABUS.*  Pages 29-40.  
5*. Rhino Level I and II Training Manuals* (Free from: http://download.rhino3d.com/Rhino/4.0/Rhino4Training)

6. Software Primers:

*https://openlab.citytech.cuny.edu/fuselab/project-components/digitalspine/*

**Recommended texts**:

Benedict, William. *Base, 121, 122, 123 Syllabi, Drawing Form, Creating Relationships*. San Luis Obipso, CA: El Corral Publications, 2007. PDF. <www.williambenedict.com>

Ching, Francis D.K. *Architecture: Form, Space, and Order (latest edition)*. New York, NY: John Wiley & Sons, Inc., 1996 (or most recent). Print.

Elam, Kimberly. *Geometry of Design: Studies in Proportion and Composition*. New York, NY: Princeton Architectural Press, 2001. Print.

Hannah, Gail Greet. *Elements of Design: Rowena Reed Kostellow and the Structures of Visual Relationships.* New York, NY: Princeton Architectural Press, 2002. Print.

Zell, Mo*, Architectural Drawing Course: Tools and Techniques for 2D and 3D Representation,* 2008, Boston: Barron’s. Print.

Ching, Frank, *Architectural Graphics.* 2009, Hoboken, NJ: John Wiley & Sons.

Lupton, Ellen, *Graphic Design: The New Basics.* 2008, New York: Princeton Architectural Press.

Tufte, Edmund, *Envisioning Information.1990*, Cheshire, CT: Graphics Press.

Tufte, Edmund, *Beautiful Evidence*. 2006, Cheshire, CT: Graphics Press.

Samara, Timothy, *A Handbook of Basic Design Principles Applied in Contemporary Design.* 2008, Providence: Rockport Publishers.

McCandles, David, *Visual Miscellaneum. 2009, New York, NY: Collins Design Publishers.*

Websites: Visual Economics, Information is Beautiful, Mathematica, and Google Earth/Maps resources

**Required Tools:**

|  |  |  |
| --- | --- | --- |
| 1. Lead Holder | 1. Alvin Adjustable Compass | 1. Ten sheets 11”x17” Vellum |
| 1. Lead Holder Sharpener | 1. Olfa Knife OR | 1. 9”x12” Self-Healing Cutting Mat |
| 1. Leads: 2H, HB, H, 2B, 4B | 1. #11 X-Acto Knife & Blades | 1. Black Marker |
| 1. 12” and 3” 30°/60° Triangle | 1. 18” Metal Ruler w/ Cork backing |  |
| 1. 12” and 3” 45° Triangle | 1. Super Glue |  |
| 1. White Eraser | 1. White Glue |  |
| 1. Erasing Shield | 1. Drawing Transport Tube |  |
| 1. 12” Architect’s Scale | 1. Art Bin/Tackle box |  |
| 1. Drafting tape or drafting dots | 1. 12” White Tracing Paper |  |
| **Recommended Tools:** | | |
| French Curves or Ships curve | | |
| Prismacolor Color Pencils: Black, 20%, 50%, 70% Gray, White | | |
| Micron Permanent Black Ink Pens: 005, 01, 03 Weights | | |
| Faber-Castell Permanent Black Ink Pens: S, F, M Weights | | |
| Two (2) sheet of 18x24 Mylar | | |
| scum x | | |

**Attendance Policy:** No more than 10% absences are permitted during the semester. For the purposes of record, two lateness are considered as one absence. Exceeding this limit will expose the student to failing at the discretion of the instructor.

**Course Structure:** This course is the first design studio which will include lectures, student presentations, guest critics, in-class workshops, and charrettes. The students will be given problems in a week-to-week sequence. Each problem will involve a cyclical iteration of the design process in which new skills in a variety of media will be acquired. Students will give verbal and graphic presentations of their designs which will demonstrate agility with vocabulary, concepts, and result in a critical class discussion to assess quality of the work. Work will be completed both in and outside of class. Written evaluation for each week will be provided by the professor and fellow classmates. Students should keep record of their own progress in a spreadsheet.

|  |  |
| --- | --- |
| **General Education Learning Outcomes / Assessment Methods** | |
| **Learning Outcomes** | **Assessment Methods** |
| Upon successful completion of this course the student shall be able to: | To evaluate the students’ achievement of the learning objectives, the professor will do the following: |
| 1. **Distinguish** between media and **determine** the appropriate method and media required to complete a drawing or model. | 1. **Review** students’ creative process (initial sketches through to the final project) by means of frequent pin-ups and **Inspect** students’ portfolios for quality of documentation and editing as well as organization. |
| 1. **Communicate** ideas and information both verbally and through writing. | 1. **Review** students’ written descriptions of design work and feedback and **Assess** the students’ use of professional vocabulary during oral presentations. |
| 1. **Develop** and **apply** professional vocabulary. | 1. **Assess** the students’ use of professional vocabulary during oral presentations. |

|  |  |
| --- | --- |
| **Course Intended Learning Outcomes / Assessment Methods** | |
| **Learning Outcomes** | **Assessment Methods** |
| Upon successful completion of this course the student shall be able to: | To evaluate the students’ achievement of the learning objectives, the professor will do the following: |
| 1. **Implement** an iterative design process from problem identification, information gathering, solution generation and evaluation, implementation, presentation, and overall project evaluation. (Knowledge) | 1. **Review** students’ creative process (initial sketches through to the final project) by means of frequent pin-ups and **Inspect** students’ portfolios for quality of documentation and editing as well as organization. |
| 1. **Incorporate** design concepts and vocabulary into design process and presentations. (Knowledge) | 1. **Review** students’ creative process (initial sketches through to the final project) by means of frequent pin-ups and **Assess** the students’ use of professional vocabulary during oral presentations |
| 1. **Produce** analog and digital orthographic, axonometric, perspective, and architectural vignette drawings. (Skill) | 1. **Review** students’ creative process (initial sketches through to the final project) by means of frequent pin-ups and **Review** students’ 2-D and 3-D analog and digital representation skills. |
| 1. **Utilize** analogue and digital media to create drawings and models. (Skill) | 1. **Review** students’ creative process (initial sketches through to the final project) by means of frequent pin-ups and **Review** students’ 2-D and 3-D analog and digital representation skills. |
| 1. **Recognize** the complexity of the physical world. (Knowledge) | 1. **Review** students’ creative process (initial sketches through to the final project) by means of frequent pin-ups and **Review** students’ drawing and modeling work where students must exhibit their visual representation skills |
| 1. **Demonstrate** understanding of computer hardware and software as used in architectural practice (Knowledge) | 1. **Review** students’ 2-D and 3-D analog and digital representation skills. |
| 1. **Demonstrate** knowledge ofgraphic conventions and methods of organization (Knowledge and Skill) | 1. **Review** students’ drawing and modeling work where students must exhibit their visual representation skills (2-D and 3-D). |
| 1. **Document** analogmaterials into digital format and process and edit for presentations and portfolio. (Skill) | 1. **Review** students’ 2-D and 3-D analog and digital representation skills and **Observe** students’ use and manipulation of computer hardware and software. |
| 1. **Create** analoganddigital 3-D models of medium geometric complexity. (Skill) | 1. **Review** students’ 2-D and 3-D analog and digital representation skills. |
| 1. **Manipulate** vector and raster files. (Skill) | 1. **Observe** students’ use and manipulation of computer hardware and software. |

**Grading:**

Class Participation and Attendance 10%

Weekly Sketches 10%

Assignments and in-class exercises:

Project 01: 10%

Project 02: 15%

Project 03: 10%

Project 04: 25%

Project 05: 10%

Course Portfolio \_ 10%

**TOTAL 100%**

**Academic Integrity:** Students and all others who work with information, ideas, texts, images, music, inventions and other intellectual property owe their audience and sources accuracy and honesty in using, crediting and citation of sources. As a community of intellectual and professional workers, the college recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension and expulsion.

**Course Outline:** At the beginning of each semester, students should prepare a spreadsheet with each exercise and their relative grade weights. Each exercise will have a Craft grade and a Design grade. Students should keep track of their own progress in this way.

**WEEKLY SKETCHES**

A total of 10 weekly sketches will be completed per semester as homework. Each sketch has a clearly defined focus and method such as blind contour form study, positive and negative space, shade and shadow, texture, light, depth, perspective, and scale. Sketches will explore a variety of paper and drawing media. Thumbnail study sketches should be completed in a sketchbook prior to preparing the final sketch on 8 ½”x11” paper. Hand letter on the back of each sketch the intention, time it took to complete, and the location.

**WEEK 1:**

*STUDIO*

*Lecture****:* RECTILINEAR FORM:** Identify axis in rectilinear forms and recognize hierarchy and dominance of volumes based on proportion. Group forms to create a visually pleasing unified object.

*Lab & Homework****:* EXERCISE 1**

1. Construct nine (9) rectangular volumes of white clay of varying sizes, but all smaller than 4” in the greatest dimension.
2. Identify dominant forms, subdominant forms, and subordinate forms. Identify the dominant axis of each volume.
3. Assemble groupings of 3 rectangular volumes (a total of 3 groupings) and secure to a ½” thick foamcore base.

*Reading:* Hannah, Gail Greet. Elements of Design: Rowena Reed Kostellow and the Structure of Visual Relationships, *pp.*44-57.

*VISUAL STUDIES*

*Lecture:*  An Overview lecture will introduce the language of architectural representation and visualization, formative terms and concepts. Additional lecture topics include an introduction to computer hardware and peripherals, and file types and folder structure.

*Assignment****:*** Template generation for digital documentation and organization of work generated in Foundations and Visual studies courses.

**WEEK 2:**

*STUDIO*

*Lecture:* **DELINEATING RECTILINEAR FORM:** Represent 3-D form in 2-D drawings which communicate depth and relationships between parts. Present and review Exercise 1.

*Lab & Homework****:* EXERCISE 2**

1. Work with one of your groupings from the previous exercise. Construct multi-view drawings of your grouping by tracing freehand over drafted construction lines.
2. Indicate the dominant, subdominant, and subordinate forms graphically. Label and dimension the axis of each volume. Indicate the ratio of length to width.

*VISUAL STUDIES*

*Lecture:* **COMPOSED IMAGES**: Present examples of successful hand and digitally produced drawings and graphics, and photography from small objects in the studio to large landscape photos. Discuss image **resolution**, framing, composition, balance, contrast, and hierarchy. These concepts will reinforce the weekly sketches in ARCH 1110. Introduce Basics of Photoshop: demonstrate image manipulation tools such as levels, contrast, hue/saturation, cropping, rotation, and image and canvas size. Post-process digital photos and scanned images.

*Concepts & Vocabulary:* Framing, composition, balance, contrast, hierarchy, texture, media, white space, paper sizes (A4 vs. 8.5x11)

*Assignment:* Use the digital photograph of Rectilinear Forms (1110, Week 1, Exercise 1). In Photoshop resize the image and check its resolution. Correct any issues with color, brightness, and distortions. Clean Images to be portfolio ready.

*Skills:* Digital photography and output to projector, and printer, Image Framing, composition, balance, contrast and hierarchy, digital camera settings, output methods (digital image, projector, printer) and resolution (dpi).

**WEEK 3:**

*STUDIO*

*Lecture****:* PERSPECTIVE:** Learn how to construct a perspective from a plan and elevation.

*Lab & Homework:* **EXERCISE 3**

1. Working with Project 2, construct a minimum of three perspectives that describe the experience of moving through the designed space.
2. Present perspectives with construction lines.
3. Work on adding entourage.
4. Develop perspectives with shade and shadow, entourage, etc. as far as possible.
5. Scan perspectives and present a minimum of three (3) 11x17 sheets with the fourth sheet showing your plan with the position of the viewer. All sheets laid out in Adobe In Design

*Reading:*Yee, Rendow. Architectural Drawing: A Visual Compendium of Types and Methods. Selected pages between: 181-303 and 367-425.

*VISUAL STUDIES*

*Lecture****:* ANALOG AND DIGITAL GRAPHICs:** Introduce scanning and image manipulation. Demonstrate scanning hardware and software. Review image manipulation tools such as levels, contrast, hue/saturation, cropping, rotation, and image and canvas size. Introduce layers.

*Concepts & Vocabulary:* Contrast, color affect, proportions, size.

*Assignment:* Scan digital image chosen for 1110 Week 3, Exercise 3. Proceed analyze the photo for number, position, size, shape, direction, texture, surface quality, and color by separating elements in different layers in Adobe Photoshop.

*Skills:* Scanning, and Image Editing Software (Adobe Photoshop).

**WEEK 4:**

*STUDIO*

*Lecture****:* BASIC PATTERN AND GEOMETRY RECOGNITION:** Identify attributes of an illustration and record their properties and affect. Identify underlying geometries and proportions of an illustration. Present and review Exercise 2.

*Lab & Homework:* **EXERCISE 4**

1. Identify the basic pattern areas in an illustration (magazine or architectural lecture series poster) by outlining their contours on tracing paper.
2. Describe the attributes: number, position, size, shape, direction, texture, surface quality, and color. Explain why these attributes enhance or support the intent of the illustration.
3. Create four 11”x17” presentation boards with the original clipping, the basic pattern area identification overlay, and inventory of attributes in either horizontal or vertical format. Label all parts of the presentation with lettering.
4. Using the same illustration, identify the overall organizing geometries of the page and its’ objects by hardline drafting over them on tracing paper.
5. Label dimensions, radii, angles, and identify the center of the page. Describe the geometric layout in sentence format.
6. Scan the illustration and overlay. Create four 11”x17” presentation board with the clipping, overlay, and description.

*Reading:* Theil, Philip. Visual Awareness and Design. pp. 68-81.

*Reading:* Elam, Kimberly. *Geometry of Design.* Pages 44-75

*VISUAL STUDIES*

*Lecture:* **TYPOGRAPHY AND PAGE COMPOSITION:** Introduction to page composition of multiple components (images, text, and graphics). Working with photographs and sketches from the previous exercises, explore several page layouts and incorporate graphics and text. Discuss differences of content and conventions between construction drawing and presentation drawings.

*Concepts & Vocabulary:* Geometric and spatial relationships, white space, hierarchy, page flow, scale.

*Assignment:* Working with 1191, Exercise 3, concentrate on sheet composition and create title block in InDesign. Note differences in file size, quality of raster text vs. non-raster text, ease of layout manipulation, layer management, etc.

*Skills:* Image Editing Software (Adobe Photoshop/Adobe InDesign), layer management and output to printer.

**WEEK 5:**

*STUDIO*

*Lecture****:* GEOMETRIC HIERARCHY:** The designs created in the Shape Generation project, Exercise 9, visually establish a flat two-dimensional world. The challenge of the Hierarchy project is to see new possibilities in these familiar designs. The goal of this project is develop a visual hierarchy of lines, balance weight and motion and implied shapes and patterns. The project will continue to investigate ideas related to generating designs within a set of constraints, generating alternatives, concepts of symmetry and asymmetry and the skills and techniques associated with traditional and digital drafting. **Present and review Exercise 4.**

*Lab & Homework:* **EXERCISE 5**

1. Take the geometry analysis from exercise 4.
2. Double the size of the square to 6”x6”.
3. Using line weight, create a sense of hierarchy between the forms.
4. Redraw your drawings with pen on vellum.
5. Scan your drawings. Add a title and print on 11”x17” paper.

*Reading:* Benedict, William. *ARCH 121 SYLLABUS.*  Pages 37-42.

*VISUAL STUDIES*

*Lecture:* **RASTER VS. VECTOR:** Introduction to raster versus vector software languages. Recreate the previous exercise using a vector based software. Analyze the differences in interface, usability, ease of editing, and output quality. Add graphic elements such as lines and areas to help reinforce page design. Discuss when one software type is appropriate over another. Reinforce page composition methods for successful communication.

*Concepts & Vocabulary:* Eye movement, information visualization and communication.

*Assignment:* Duplicate 1110 Exercise 5 Basic Geometry Recognition using Adobe Illustrator. Format and layout in either Adobe Illustrator or InDesign. Output is 11x17. Use hand-drafted drawings as underlays.

*Skills:* Vector based page-layout/drawing software (Adobe Illustrator), 2D drawing and editing

**WEEK 6 & 7:**

*STUDIO*

*Lecture****:* PAPER LANDSCAPES:** Transforming two dimensional compositions into three dimensional compositions. Consider scale, proportion, hierarchy, circulation and space. **Present and review Exercise 5.**

*Lab & Homework:* **EXERCISE 6**

1. Take the geometry analysis from exercise 5.
2. Scale the patterns to fit in an 11x17 Piece of paper.
3. Generate a set of rules using based on the line types used in the composition to create a tree dimensional exploration. i.e: thin line = fold; medium line = cut; thick line = extrusion.
4. Insert human scale into the exploration and generate a series of iterations exploring how human scale relates to the different spaces.

*VISUAL STUDIES*

Week 6

*Lecture:* **VECTOR DRAWING**: Working with a drafted drawing from ARCH 1110 add depth cues such as line weight, shade/shadow. This should be done by hand using pen and pencil, and should be also be done by scanning the image and tracing in a vector based software.

*Concepts & Vocabulary:* Line weight, shade and shadow, depth, foreground/middleground/background

*Hand Skills:* pen and pencil medium, rendering techniques

*Assignment:* Work with 1110, Exercise 2B, Geometry recognition. Layout in Illustrator or InDesign.

*Skills:* Drawing in a vector-based software (Adobe Illustrator), use of value and texture

Week 7

*Lecture:* **PORTFOLIO PART II:** Review image organization and hierarchy, text as a graphic element, storytelling through composition and organization of information.

*Assignment:* Continue to develop portfolio design and layout. Add project 02.

**WEEK 8 & 9:**

*STUDIO*

*Lecture****:* DURER’S ALPHABET:** Understand geometric proportions described in written form to draft an accurate representation through multi-view orthographic and paraline drawings. Present and review Exercise 4.

*Lab & Homework:* **EXERCISE 7**

1. Based on Albrecht Durer’s written description, choose a letter of the alphabet and construct a precise and perfectly proportioned drawing. Preserve your construction lines.
2. Imagine the letter was extruded to fit a 4” cube then draw all 6 sides of the object. Draw a plan oblique view and a set of multi-view drawings (including sections) of the letter and add shading.
3. Generate an Axonometric drawing of the letter and cut 2 sections through it.

*Reading:* Durer, Albrecht. *Of the Just Shaping of Letters.*

Web URL, PDF: <http://sean.gleeson.us/2006/03/08/durers-crazy-idea>

*VISUAL STUDIES*

*Lecture:* **Vector Drafting in CAD**: Introduce 2D-CAD (AutoCAD) drafting and highlight similarities and differences between hand drafting and digital drafting (line weights, layer management, blocks for page size and titleblock). Highlight differences between page layout in CAD versus InDesign/Illustrator/Photoshop.

*Concepts & Vocabulary:* Line weight, Layers, pens, blocks, Mtext, drafting tools (line, polyline, circle, copy, etc.)

*Assignment:* Draft any of the previous hand drafted exercises from 1110 (Exercise 2, Exercise 4, Exercise 5) include at least one drawing that was not previous hand-drafted. (Total drawings should include: plan, elevations, sections, plan and or elevation oblique and/or isometric).

*Skills:* CAD 2D drafting and Layout

**WEEK 10 & 11:**

*STUDIO*

*Lecture****:* GRIDS/CUBE PART 1:** Use geometric proportions to derive a 6-sided form which addresses a given use. Present and review Exercise 5.

*Lab & Homework:* **EXERCISE 8**

1. Set up 6 - 4”x4” boxes on a sheet of vellum. In each box you will develop a different grid system based on rhythm and proportion as discussed in class. Tools : AutoCAD & Illustrator. Label proportions and repetitions. Use layers in Adobe Illustrator to create transparencies and levels in the grid.
2. Apply each of the “rendered” 4”x4” grids to a 4” foam cube. Carefully consider how the lines wrap around the volume. Consider what happens to spaces in between the grid lines, at the edges and at areas with varies level indicated by the transparent or gradient fills.
3. Cut into the foam cube based on the lines of your grid. Use appropriate tools to get precise and detailed cuts per your 4”x4” grid drawing.
4. Take 3 high quality photos of each foam model. Pay close attention to light, shadow to highlight your forms. Each photo must fill an 11x17 page.
5. Create a 2D hand drafted multi-view drawing of your cube with shading to indicate depth on vellum.

*VISUAL STUDIES*

*Lecture:* **3D MODELING:**  Introduce architectural 3D digital modeling by showing examples. Examples display various modes of output (screen capture, rendered, photo-realistic rendering, 3D print).

*Concepts & Vocabulary:* Nurbs, vector based drawing, Boolean operations, Light, shade and shadow, foreground/middleground/background, horizon, scale

*Assignment:*

Week 9

Generate a three Dimensional grid and create a series of 9 compositions extruding rectilinear forms utilizing the grid to constrain the proportions and volume of the parts. Use points, curves, surfaces, solids, and Boolean operations.

Week 10

Edit the 9 compositions generated last week using the Boolean operations. Use the operation to investigate the potential spaces generated at the intersections of volumes. Render each edited model.

*Skills***:** 3D modeling software (McNeel Rhinoceros), curves, surfaces, Booleans, Rendering software (Rhino Render and V-Ray)

**WEEK 12:**

*STUDIO*

*Lecture****:* CUBE PART 2:** The exploded sectional isometric

*Lab & Homework:* **EXERCISE 9**

1 Create an exploded isometric sectional drawing of your cube.

2 First draw an isometric of your foam cube.

3 Select sectional cuts approximately ½” from the surface of each face.

4 Use lineweights, hatching and colored lead to identify the cross sectional areas.

5 Use construction lines and heavy dashed lines to extend (explode) the section cuts away from the

cube to illustrate the section clearly.

6 Final drawings should be on vellum paper sized to show all six sectional cuts clearly and with no

overlaps on the original cube at the center of the drawing.

*Reading:* Benedict, William. *ARCH 121 SYLLABUS.* Pages 29-36.

*VISUAL STUDIES*

*Lecture:* **Workflow: Rhino > Illustrator > InDesign.** Strategies for using multiple software applications to create composite presentation drawings

*Concepts & Vocabulary:* Saving views and overlaying drawing and renderings. Hierarchy and legibility of information.

*Assignment:* Output vector drawings and renderings using Rhinoceros of the 9 model iterations. Using illustrator create composite drawings overlaying the vector drawing over the rendering. Create a catalog of all the composite images in InDesign

*Skills:* workflow

**WEEK 13:**

*STUDIO*

*Lecture****:* Folded Planes:**

*Lab & Homework:* **EXERCISE 10: Folded Planes**

**Step 1:** Carefully draw a 1/2” X 1/2” grid on both sides of an 11” x 17” sheet of **4-ply (1/16” thickness)** Bristol Board or any other material with the same thickness.

**Step 2:** Score, fold, and tab each sheet into a 3-dimensional composition. Note that scoring the backside of the plane prior to folding creates neat edges. Rules:

- Only 90 degree connections

- No coplanar, edge connected to edge or overlap, conditions

- Minimum 1” overlap on all tabbed connections.

- No piece may measure less than 1”in any direction

- You may not detach and discard any of the original planes

- The composition must be stable and stand on its own

- You may not use glue.

**Step 3:**

- Photograph yourself or one of your classmates performing the activities you imagine when inhabiting the space (standing, stretching, kneeling.) In Photoshop reduce the images to either 1/4"=1'-0" or 1/8"=1'-0" depending on the scale you have been working on the model. Print and place them in the model in order to show the space activated with program.

PART B

Using the same folding technique translate the solids of your foam cube to folded planes. Steps:

- Analyze your foam cube into structural elements or partitions versus solids.

- Organize in bigger groups the **solids** of your cube composition.

- Recreate the resulted bigger shapes using the folded plane technique. You should draw a 1/2” X 1/2” grid on them on both sides.

- Tape them in such a way that the overall result recreates the foam cube composition, this time though, using folded planes.

*VISUAL STUDIES*

*Lecture****:*** **DIGITAL RENDERING:** Photomontage creation

*Assignment:* Continue refining and adding context to the rendered output. Render in various materials, but each rendering should contain a limited palette of materials (1-2). Post-process rendered output in a raster based software to add context. Use Exercise 11.

*Skills:* 3D modeling software (McNeel Rhinoceros) and rendering software (V-Ray), post-processing entourage elements with Photoshop

**WEEK 14:**

*STUDIO*

*Lecture****:* Folded Planes: Sections.** How to construct an architectural section.

**Process**

- Draw a thick horizontal line as your ground.

- Measure volumes and transfer to your mylar sheet.

- Highlight as dark outline filled with black ink all your cut areas.

- Shade accordingly projected areas. In other words shade accordingly areas that you do not cut but still see them as elevations. Areas closer to your sectional plane are brighter and those that are further away are darker.

- Use coherent techniques for all your shadings.

- Add silhouettes in scale to your sectional drawings interacting with the space.

*VISUAL STUDIES*

*Lecture****:* Laser cutting:** how to prepare Rhino files for laser cutting

*Assignment:* Select the most successful 3-D model iteration and prepare the file for Laser Cutting. Laser cut and assemble the model for presentation.

**WEEK 15:**

*STUDIO*

*Lecture****:* FINAL PRESENTATION:** Final pin-up and presentation of all cube exercise. Verbal presentations by students with a review jury of at least one outside critic. Written feedback on student performance completed and distributed.

*VISUAL STUDIES*

*Assignment: Final portfolio presentation*

**Bibliography:**

Hannah, Gail Greet. Elements of Design: Rowena Reed Kostellow and the Structure of Visual

Relationships. New York: Princeton Architectural Press, 2002. Print.

Lupton, Ellen and Jennifer Cole Phillips. *Graphic Design: The New Basics.* New York, NY: Princeton

Architectural Press, 2008. Print.

Theil, Philip. Visual Awareness and Design: An Introductory Program in Conceptual Awareness,

Perceptual Sensitivity, and Basic Design Skills. Seattle: University of Washington Press, 1983. Print

Zell, Mo. Architectural Drawing Course: Tools and Techniques for 2D and 3D Representation.

Hauppauge, NY: Barron’s Educational Series, Inc., 2008. Print.

I have read and acknowledge the above written syllabus for Arch 1110: (Your Full Name)

Create PDF and post online

# Department of Architectural Technology

**ARCH 1121 HISTORY OF WORLD ARCHITECTURE to 1900**

1 classroom hours, 2 lab/studio hours, 2 credits

**Course Description:** Anhistorical survey of architecture from early civilizations to the start of the Industrial Revolution. Architecture is examined as an expression of the culture and life of a society. Class sessions study architecture from around the world within its social, temporal, and spatial contexts. While the history of Western architecture is covered from ancient Egypt to the Enlightenment, a special focus is directed to the architectures of the Far East, South Asia, Africa, pre-Columbian Latin America, the Islamic World, and elsewhere to provide a comprehensive overview of the richness and diversity of architecture as a cultural artifact.

**Pre or corequisite:** ENG 1101

**Suggested Text:** Understanding Architecture: Its Elements, History and Meaning (3rd ed) by Leland M. Roth and Amanda C. Roth Clark, Colorado: Westview Press, 2014.

**Suggested Reference:** Varies depending upon the subject of the course

**Attendance Policy:** No more than 10% absences are permitted during the semester. For the purposes of record, two latenesses are considered as one absence. Exceeding this limit will expose the student to failing at the discretion of the instructor. More than 10 minutes is considered late.

**Course requirements**: Students will be required to keep up with weekly reading assignments and be prepared to discuss assigned readings in class. This course is writing intensive and will require students to write about material discussed in class, documented in the readings, and experienced in the city. OpenLab will be actively used by all students to post writing assignments and reflections as required. OpenLab provides a collaborative environment where students can post and share their understandings and experiences.

**Grading:**   Homework /Writing Assignments 60%

Quizzes 10%

Examinations 20%

Class Participation 10%

**Academic Integrity:** Students and all others who work with information, ideas, texts, images, music, inventions and other intellectual property owe their audience and sources accuracy and honesty in using, crediting and citation of sources. As a community of intellectual and professional workers, the college recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension and expulsion.

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| **General Education Learning Outcomes / Assessment Methods** | |
| **Learning Outcomes** | **Assessment Methods** |
| Upon successful completion of this course the student shall be able to: | To evaluate the students’ achievement of the learning objectives, the professor will do the following: |
| **1. Develop** a vocabulary of architectural terms and use it to describe buildings and descriptive writing skills. | 1. **Assess** students’ use of professional vocabulary in the written work and during class discussions. |
| 2. **Communicate** ideas & information both verbally and through writing. | **2. Assess** student research and critical thinking abilities by monitoring weekly progress of written assignments and readings. |
| 3. **Research and evaluate** information from diverse sources. | **3. Assess** the students’ ability to integrate and communicate through student presentations. |

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| **Course Intended Learning Outcomes / Assessment Methods** | |
| **Learning Outcomes** | **Assessment Methods** |
| Upon successful completion of this course the student shall be able to: | To evaluate the students’ achievement of the learning objectives, the professor will do the following: |
| 1. **Comprehend** architecture as an artistic endeavor and as a response to human needs. (Knowledge) | **1. Assess** the quality of critical thinking and contributions to discussions during oral presentations. |
| 2. **Understand** architecture in the context of its geopolitical, economic, social, cultural and technological trends. (Knowledge) | 2. **Assess** students’ understanding of the development of architecture from pre-history through to the 19th century in their written and sketching assignments |
| 3. **Identify** paradigm plans and elevations of significant buildings. (Knowledge) | **3. Assess** the students’ ability to synthesize and apply what is learned from exams and written assignments. |
| **4. Communicate** effectively through presentations to the class using written oral and graphic media. (Skill) | 4. **Assess** the students’ ability to recall and recite the key terms and material of the readings and lectures through class quizzes, midterm and final exam. |
| **5. Communicate** effectively using a vocabulary developed throughout the course. (Skill) | **5. Assess** the students’ use of professional vocabulary during quizzes, oral presentations and written assignments. |

**Weekly Course Outline**While the specific details of each section will differ all courses will follow this basic outline:

**Week 1: Early Civilizations – Neolithic to Babylon**

Lecture: Examination of structures from the Neolithic period through the lost civilization of Babylon, including Mesopotamia, Samaria, and Assyria. Topics covered include formal concepts such as megaliths, ziggurats, vaults, and constructional methods such as post-and-beam, trabeation, and cantilever. Building artifacts are studied in their historical and cultural contexts.

Reading Assignment: Read chapters 1, 2, and 4 in Roth: Commodity, Firmness, and Delight in Architecture

**Week 2: Egypt c. 3000 BCE – 30 BCE**

Lecture: The “Golden Age” of Egypt is discussed, beginning with the emergence of pyramids from the more primitive burial chambers in mastabas. Students will learn how articulated columns evolved in temple design, and see how principles of symmetry and scale shaped architectural expression.

Class Discussion: Week 1 reading

Writing Assignment: Visit Grand Central Terminal: Write a 400- 500-word essay on how this building conforms to Commodity, Firmness, and Delight

Reading Assignment: Chapter 10 in Roth: Egyptian architecture

**Week 3: Ancient Greece**

Lecture: Beginning with Minoan culture represented by the palace of Knossos and its evolution in Mycenae, this week looks at the great Greek temples, agoras, and domestic constructions. Students will study in further detail the classical orders introduced in ARCH1101.

Class Discussion: Week 2 reading: Egyptian architecture

Writing Assignment: Visit Federal Hall on Wall Street: Discuss how it conforms to the principles of Greek temple architecture

Reading Assignment: Chapter 11: Greek architecture

**Week 4: Ancient Rome**

Lecture: Evolving from the confluence of Etruscan and Greek influences, Roman builders produced iconic buildings and cities, introducing long-span brick arches, complex barrel-vaulting and dome techniques which made possible the aqueducts, baths, and the Pantheon.

Class Discussion: Week 3 lecture and reading: Greek Architecture

Reading Assignment: Chapter 12 in Roth: Roman Architecture

Study assignment: Prepare for quiz on Egypt, Greece, and Rome

**Week 5: Early Christian and Eastern Europe (Byzantine) 450 CE – 800 CE**

Lecture: Topics include the division of Roman Empire into East and West; dual development of the dome on squinches and pendentives; basilica plan versus centralized plan; the cities of Rome, Ravenna, and Constantinople; and buildings San Vitale, Hagia Sophia and St. Mark’s in Venice.

Quiz: Egypt, Greece, and Rome

Reading assignment: Chapter 13 in Roth: Early Christian and Byzantine

Writing assignment: Find a building in your neighborhood inspired by classical principles. Photograph it and write a 300-word essay using the terms we have discussed. Prepare a three- to five-minute presentation of your building.

**Week 6: India and Southeast Asia 300 BCE – 1200 CE**

Lecture: The rise of Buddhist and Hindu cultures found expression in elaborate temple cities such as Madurai rich in religious symbolism. A look at the remains of the lost Khmer cities of Angkor Vat and Angkor Thom reveals the sophisticated formal patterns of ornament unique to these cultures.

Student presentations: Week 5 assignment

Reading assignment: TBD on India and Southwest Asia

**Week 7: China and Japan 200 CE -1200 CE**

Lecture: China’s architectural heritage dates back to the Han dynasty and the Great Wall. Under the Sui and Tang dynasties city-building flourished (200-900 CE), and during the Song through Ming dynasties (800-1600), the wood-framed temples and palaces associated with traditional architecture were developed. As with China, traditional Japanese architecture had its origins in Buddhism and its unique forms evolved from continental models brought over by Tang builders. Similarities and differences in formal and constructional approaches between the two cultures are carefully examined.

Reading assignment: TBD on China and Japan

Writing assignment: Perhaps something from the Metropolitan Museum

**Week 8: Persia and the Middle East 600 CE-1200 CE**

Lecture: This week considers architecture of the Arab world of its great period following the Hegira of Muhammed. Monuments studied include the Dome of the Rock, the Great Mosques of Sumarra, Cordoba, and the Alhambra. Persian architecture is explored in the Royal Palace of Isfahan and the Palace of the Shah. The elaborate patterns within the tile work will be analyzed as well as the structural dynamics of the onion dome and the signature articulated pendentives.

Class Discussion: Week 7 lecture and reading

Study assignment: Study for mid-term

**Week 9: Central Europe - Spain, France, and Italy (Romanesque) 800 CE-1100 CE**

Midterm; Weeks 1-8

Lecture: Topics include the fall of the Roman Empire; rise of the church and the monasteries; elements of the church cruciform plan of the Christian churches and ribbed vaulting. Comparison of variations during the Romanesque period will be made.

Reading assignment: Roth, Chapter 14

**Week 10: Northern Europe -France, England and Germany (Gothic) 1000 CE – 1400 CE**

Lecture: The evolution of the cathedral plan, types of vaulting, the pointed arch, flying buttresses, and stained glass characterize this period particular to northern Europe. These classes will carefully consider the structural principles necessary for its implementation in skeleton stone framing.

Class discussion: Week 9 lecture and reading

Writing assignment: Romanesque and Gothic [see example]

Reading Assignment: Roth, chapter 15

**Week 11: Central and South America, and Africa 800 CE-1500 CE**

The great civilizations of the Aztec, Mayan, and Incas are studied in the context of their traditions and constructional techniques. Sub-Saharan culture and its forms of habitation are explored.

Class discussion: Week 10 lecture and reading

Writing assignment: TBD

Reading Assignment: TBD on Central and South America and Africa

**Week 12: Central Italy – Renaissance and Mannerism 1400 CE- 1600 CE**

Lecture: These classes look at the nature of this rebirth in the “rediscovery” of Classical Rome. Beginning with the early Renaissance in Florence and following through to the High Renaissance in Rome, buildings considered are the Florence Cathedral’s Dome and Brunelleschi’s solution. Works by Brunelleschi, Alberti, Bramante, Michelangelo, Palladio, Romano and others are analyzed.

Class discussion: Week 11 lecture and reading

Writing assignment: research the Laurentian Library stair hall by Michelangelo. Write a 400- to 500-word essay on its Renaissance and Mannerist features.

Reading Assignment: Roth, chapter 16

**Week 13: Rome – Baroque 1600 CE- 1700 CE**

Lecture: Although Baroque found expression throughout Europe, it was in Rome where it flourished during the counter-Reformation. These classes look at the work of Bernini, Borromini, Crotona, and Raguzzini. Building comparisons will emphasize the transition from the Renaissance to the Baroque. Furthermore, the architecture of Vignola, Moderno, and Guarini (in Torino) among others will be explored.

Class discussion: Week 12 lecture, reading, and homework

Writing assignment: TBD

Reading Assignment: Roth, chapter 17

**Week 14: Germany and France – Rococo and Neo-Classical 1700 CE- 1850 CE**

This week explores two different approaches to architecture: the fluid expression of German Rococo that evolved from Italian Baroque and found in the pilgrimage churches of central and southern Germany, and the austerity of French neo-classicism, an outgrowth of the French Revolution.

Class discussion: Week 13 lecture and reading

Study assignment: Study for Final Exam (second half of the semester)

Reading Assignment: Roth, chapter 18

**Week 15: England and Colonial America 1600 CE – 1900 CE**

Lecture: Colonial architecture in the northern colonies was greatly influenced by English architects of Inigo Jones, John Soane, and Christopher Wren. These classes explore Palladio’s influence on the English practitioners, and in turn locate their influence on colonial vernacular, and on the practices of Benjamin Latrobe, William Strickland, Thomas U. Walter, John Mills, Charles Bulfinch, among others. Case studies will focus on the work of Thomas Jefferson: Monticello, University of Virginia, and the Virginia State House

Final exam

**Assignments:**

During the course of the semester, ten to twelve one-week writing assignments are given that challenge the students to apply their learning to a building or architectural concept. Initially low-stakes assignments, they become more sophisticated as the students build their critical abilities. Below is a typical assignment.

# Department of Architectural Technology

**ARCH 1121 HISTORY OF ARCHITECTURAL** **TECHNOLOGY (W)**

1 classroom hrs, 2 lab hrs, 2 academic credits

**Instructor: Professor Duddy** [mduddy@citytech.cuny.edu](mailto:mduddy@citytech.cuny.edu)

**Assignment 7: Romanesque and Gothic**

The many periods of architecture that we are studying this semester occurred long before the European settlers arrived in America. Nevertheless, many of these same styles can be found throughout the American continents, although they are adaptations of the originals in Europe. We call these adaptations “revivals” or “neo,” meaning “new” or “recent” [Greek *neos*], and they are usually interpretations of the older versions, and not copies. Hence: Neo-Classical, Neo-Romanesque, Neo-Gothic, etc.

For this assignment you will compare two examples of Neo- styles: the neo-Gothic Saint Ann’s Church in Brooklyn Heights with the Neo-Romanesque Brooklyn Bankruptcy Court portion of the Central Post Office. What you should discuss includes but is not limited to the following:

* What is the massing of each building? Is it symmetrical; what are the proportions; what is the rhythm, etc.?
* What kind of vertical element does it have? Where is that element located? Why is located where it is?
* What shape are the windows?
* What kind of columns does it have?
* What are the building made of? What kind of texture do the parts of the building have?

Saint Ann’s Church Brooklyn Bankruptcy Co

This assignment will be done in two parts. This week you will visit the buildings and look closely at their features. You will notice that they both have tower elements but that they are different. How are they similar and how are they different? Take pictures of them and note in bullet points how they compare. For next class you will prepare a slide presentation showing at least three different characteristics you want to contrast and compare. Be sure to use the terms we have been discussing in class. We will go through the presentations and discuss everyone’s findings. For the following class you will write a 500 word (minimum) paper that compares and contrasts the two styles of the buildings.

**Course Activities:**

Course format will include a combination of any of the following activities:

* **Field Trips / High Impact Learning Practices:**Field trips will look to visit existing buildings and construction sites, tour newly constructed buildings and urban spaces or visit institutions, including but not limited to museums, churches, or other colleges with discussions led by either the instructor or on-site experts in the field or the subject.
* **Lectures:**

Lectures will be given by a qualified instructor and if warranted invited guest lecturers or experts in the field or subject.

* **Activities:**

Students will participate in activities that provide them with the opportunity to apply what is learned in a given subject.

* **Research Activities:**

Students will be given directed readings and be required to correlate their readings with the lab exercises. Supplemental research will be encouraged to promote a greater analytical and critical understanding.

* **Presentations:**

Students will participate in written, oral and graphic presentation of course subjects and issues identified through their reading, writing, and lab work.

Department of Architectural Technology

**ARCH 1212 ARCHITECTURAL DESIGN II: FOUNDATIONS AND VISUAL STUDIES**

1 lecture hour and 8 lab/studio hours, 5 credits

**Course Description:** A first-year foundational course that increases students’ ability to perceive visual cues, create visual design, formulate concepts, and render ideas in two or three dimensions. Students use a combination of hand and digital skills to aid in the creation and interpretation of three dimensional objects and space, and the delineation of the same using standard projection systems.

The Visual Studies component of the course builds on the knowledge of architectural representation and visualization obtained in Foundations and Visual Studies I. The course provides training in design tools that will strengthen visual, verbal, and graphic aspects of design and representation skills and will continue to build design and representation techniques and workflows that will prepare them for future coursework and professional practice.

The course focuses on:

* Precision and craft in physical models and drawings, including basic rendering techniques
* Precision and craft in digital models and drawings, including basic rendering techniques
* Understanding of differences between physical and digital techniques in architectural design and representation, and how the two can be combined into effective workflows
* Effective digital file management and organization
* Effective arrangement of drawings, diagrams, graphics, and text onto presentation boards and in portfolios
* Clear representation of geospatial information
* Ability to intelligently discuss design concept and process in oral presentations

**Course context:** This is the second required course in the design foundations sequence. It is a prerequisite for the subsequent studio course.

**Prerequisites:** ARCH 1112 or ARCH 1110 and ARCH 1191 with a grade of C or higher

**Co-requisites:** none

**Required Texts:**

1. Ching, Francis D. K. *Architecture--form, Space, & Order*. Hoboken, N.J: John Wiley & Sons, 2007
2. Software Primers *for Rhino, Illustrator, InDesign, Photoshop, and VRay located at* [*https://openlab.citytech.cuny.edu/fuselab/softwarefabrication-tutorials/*](https://openlab.citytech.cuny.edu/fuselab/softwarefabrication-tutorials/)

Additional readings will be provided to the students.

**Recommended Texts:**

1. Ching, Francis D. K, and Steven P. Juroszek. *Design Drawing*. Hoboken, N.J: John Wiley & Sons, 2010.
2. Dunn, Nick. *Architectural Modelmaking*. London: Laurence King Pub, 2010.
3. Hannah, Gail G. *Elements of Design: Rowena Reed Kostellow and the Structure of Visual Relationships*. New York: Princeton Architectural Press, 2002.
4. Janson, Alban and Florian Tigges. *Fundamental Concepts of Architecture: The Vocabulary of Spatial Situations*. Birkhauser, 2014.
5. Mills, Criss. *Designing with Models: A Studio Guide to Making and Using Architectural Design Models*. Hoboken, N.J: John Wiley & Sons, 2005.
6. Rasmussen, Steen E. *Experiencing Architecture*. Cambridge Mass.: M.I.T. Press, 1964.

**Required Supplies:**

Architectural scale

12” Roll of tracing paper

Sketchbook

White glue

Olfa Knife and replacement blades

12” or 18” metal ruler w/ cork backing

9” x 12” self-healing cutting mat

Lead, Lead holder and Sharpener

12” adjustable triangle

Eraser and erasing shield

Drafting tape

Box of pushpins

Drawing transport tube

*Additional supplies and materials to be discussed in class.*

**Attendance Policy:** No more than 10% (3) absences are permitted during the semester. For the purposes of record, two late arrivals (more than 15 minutes) are considered as one absence. Exceeding this limit will expose the student to failing at the discretion of the instructor.

**Course Structure:** This course is a design studio which will include lectures, student presentations, guest critics, in-class workshops, and charrettes. Each design problem will require students to engage in an iterative design process through which they will acquire new skills in a variety of media. Students will deliver verbal and graphic presentations of their designs that will demonstrate agility with vocabulary and concepts and result in a critical class discussion to assess the quality of the work. Work will be completed both in and outside of class. Students’ work will be evaluated at each class meeting. Students are encouraged to keep record of their own progress.

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| **General Education Learning Outcomes / Assessment Methods** | |
| **Learning Outcomes** | **Assessment Methods** |
| Upon successful completion of this course the student shall be able to: | To evaluate the students’ achievement of the learning objectives, the professor will do the following: |
| 1. **Distinguish** between media and **determine** the appropriate method and media required to complete a drawing or model. | 1. **Review** students’ creative process (initial sketches through to the final project) by means of frequent pin-ups and **Inspect** students’ portfolios for quality of documentation and editing as well as organization. |
| 1. **Communicate** ideas and information both verbally and through writing. | 1. **Review** students’ written descriptions of design work and feedback and **Assess** the students’ use of professional vocabulary during oral presentations. |
| 1. **Develop** and **apply** professional vocabulary. | 1. **Assess** the students’ use of professional vocabulary during oral presentations. |

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| **Course Intended Learning Outcomes / Assessment Methods** | |
| **Learning Outcomes** | **Assessment Methods** |
| Upon successful completion of this course the student shall be able to: | To evaluate the students’ achievement of the learning objectives, the professor will do the following: |
| 1. **Implement** an iterative design process from problem identification, information gathering, solution generation and evaluation, implementation, presentation, and overall project evaluation. (Knowledge) | 1. **Observe** students’ progression from simple to complex thinking as shown in sketches and completed projects and **Review** students’ selection of drawing techniques. |
| 1. **Incorporate** design concepts and vocabulary into design process and presentations. (Knowledge) | 1. **Review** students’ creative process (initial sketches through to the final project) by means of frequent pin-ups and **Assess** the students’ use of professional vocabulary during oral presentations |
| 1. **Produce** analog and digital orthographic, axonometric, perspective, and architectural vignette drawings. (Skill) | 1. **Review** students’ 2-D and 3-D analog and digital representation skills and **Inspect** student digital files for use/application of professional standards. |
| 1. **Utilize** analogue and digital media to create drawings and models. (Skill) | 1. **Review** students’ creative process (initial sketches through to the final project) by means of frequent pin-ups and **Review** students’ 2-D and 3-D analog and digital representation skills. |
| 1. **Represent** human scale and proportion in design drawings. (Skill) | 1. **Review** students’ drawing and modeling work where students must exhibit their visual representation skills (2-D and 3-D). |
| 1. **Demonstrate** understanding of computer hardware and software as used in architectural practice (Knowledge) | 1. **Review** students’ drawing and modeling work where students must exhibit their visual representation skills (2-D and 3-D). |
| 1. **Incorporate** color and materials into designs and presentations. (Skill) | 1. **Review** students’ drawing and modeling work where students must exhibit their visual representation skills (2-D and 3-D). |
| 1. **Demonstrate** knowledge ofgraphic conventions and methods of organization (Knowledge and Skill) | 1. **Review** students’ drawing and modeling work where students must exhibit their visual representation skills (2-D and 3-D). |

**Assessment:** To evaluate the students’ achievement of the learning objectives, the professor will do the following:

1. **Review** students’ creative process (initial sketches through to the final project) by means of frequent pin-ups.
2. **Assess** the students’ use of professional vocabulary during oral presentations.
3. **Review** students’ written descriptions of design work and feedback.
4. **Review** students’ selection of drawing techniques. (Lo: 1)
5. **Observe** students’ progression from simple to complex thinking as shown in sketches and completed projects. (Los: 1, 4, 7)
6. **Observe** students’ use and manipulation of computer hardware and software. (Los: 2, 3, 6, 8)
7. **Inspect** students’ digital files for use/application of professional standards. (Lo: 3)
8. **Inspect** students’ portfolios for quality of documentation and editing as well as organization. (Los: 3, 6)
9. **Review** student digital files for use/application of professional standards. (Lo: 3)
10. **Review** students’ drawing and modeling work where students must exhibit their visual representation skills (2-D and 3-D). (Los: 3, 4, 5, 6, 7, 8, 9, 10, 11)

**Grading:** A review of students’ work will occur at the middle and end of the semester.

Project 01: Bridging Surfaces 20%

Project 02: The Vertical Stage 30%

Project 03: The Connecting Threshold 30%

Class Participation / Attendance 10%

Process Book 5%

Sketch assignments 5%

**Sketch Assignments:** Throughout the semester students will complete multiple sketches relating to each design project. The sketches will document site conditions, materials, and ideas.

**File Naming:** All digital files must be submitted adhering to the following format:

Course number\_Professor initials\_semester/year\_Project Name\_Student Name(image number)

For example: 1210\_KS\_SP16\_Project Name\_Student Name(01)

**Academic Integrity:** Students and all others who work with information, ideas, texts, images, music, inventions and other intellectual property owe their audience and sources accuracy and honesty in using, crediting and citation of sources. As a community of intellectual and professional workers, the college recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension and expulsion.

**Sample Course Outline:** Week 1 STUDIO Course Introduction

ISSUE: PROJECT 01\_Bridging surfaces

P01 Assignment 01: Site documentation through photography. Generate a P01 Assignment 02: concept collage and line drawing

VISUAL STUDIES

Assignment 01: Origami Folded surface – analysis and generation of physical folded models.

Portfolio: generate initial template (this will be an ongoing project throughout the semester)

Week 2 STUDIO P01 Assignment 02: 3D abstract study models using linear, planar and volumetric language (Based on the 2D collage)

VISUAL STUDIES

Assignment 02:Digitizing Folded surfaces model. Building and cleaning model geometry in Rhino

Week 3 STUDIO P01 Assignment 03: Series of iterations of the bridge design proposal (translation of abstract design language to architectural proposal)

VISUAL STUDIES

Assignment 03: DigitalIterations Folded model

Week 4 STUDIO P01 Assignment 04: Final model construction

P01 Assignment 05: Orthographic projections of the final proposal

VISUAL STUDIES

Assignment 04a: Apertures and extracting geometry from surfaces

Assignment 04b:Creating composite drawings Rhino + Illustrator

Week 5 STUDIO P01 Assignment 04 cont.: Final model construction

P01 Assignment 05 cont.: Orthographic projections

P01 Assignment 06: Presentation board

VISUAL STUDIES

Assignment 05:Extracting planar geometry for laser cutting + laser cutting

Week 6 STUDIO **DUE: PROJECT 01 – FINAL REVIEW**

DUE: PROJECT 01 ARCHIVE

ISSUE: PROJECT 02\_Vertical stage

VISUAL STUDIES

Assignment 06: PORTFOLIO draft 01 submittal

Week 7 STUDIO P02 Assignment 01: Performance Analysis diagram

P02 Assignment 02: Site Analysis (in conjunction with VSII)

VISUAL STUDIES

Assignment 07a**:** Site Analysis: Diagramming with Rhino, Illustrator and Photoshop

Week 8 STUDIO P02 Assignment 02 cont.: Site Analysis (in conjunction with VSII)

P02 Assignment 03: Study models: generation of design language and concept development

VISUAL STUDIES

Assignment 07b:Workshop Refining Diagrams and presentation

layouts

Week 9 STUDIO P02 Assignment 04: Model: vertical stage design development

P02 Assignment 05: Digital model design proposal (in conjunction with VSII)

VISUAL STUDIES

Assignment 08**:** Digital model (Rhino): Different strategies for Modeling in Rhino.

Week 10 STUDIO P02 Assignment 04 cont.: Final model: Vertical Stage design

P02 Assignment 05: Digital model (in conjunction with VSII)

VISUAL STUDIES

Assignment 09:Using the modeling techniques introduced last week create a digital model of your current design proposal. Use the clipping plane tool to study the sectional spatial qualities of the space. Print the sectional studies, insert a scale figure and continue to edit the section in sketch form.

Week 11 STUDIO P02 Assignment 06: Orthographic projections (in conjunction with VSII)

P02 Assignment 07: Diagrams of design strategy and development (in conjunction with VSII)

P02 Assignment 08: Final presentation board(s)

VISUAL STUDIES

Assignment 10:Presentation drawings: Adding surface thickness,

extracting, cleaning and articulating plans, elevations, sections and Section/perspectives from digital models

Week 12 STUDIO

DAY 1 **DUE: PROJECT 02 – FINAL REVIEW**

DAY 2 ISSUE: PROJECT 03\_Thresholds: DUMBO welcome center

P03 Assignment 02: Study models welcome center proposal

VISUAL STUDIES

Assignment 11:Storytelling through diagramming**:** Generate a sequence diagram to help describe the design development of Project 02

Week 13 STUDIO P03 Assignment 02 cont.: Models design development welcome center

P03 Assignment 03: Digital Model

P03 Assignment 04: Diagrammatic sequence

VISUAL STUDIES

Assignment 12: Rendered sections: Using a section from project 02 created a composite drawing that activates the space

Week 14 STUDIO P03 Assignment 02 cont.: Final Models welcome center

P03 Assignment 04: Diagrammatic sequence

P03 Assignment 04: Drawings: rendered Elevation, plan and sections (in conjunction with VSII)

VISUAL STUDIES

Assignment 13:Develop digital models and presentation drawings for

Project 03 in ARCH 1210

Week 15 DAY 1 P03 Assignment 03: Final model: Vertical Stage design

DAY 2 **DUE: PROJECT 03 – FINAL REVIEW**

VISUAL STUDIES

**DUE: PORTFOLIO**

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**Minutes from Department of Architectural Technology Meetings**

**ARCHITECTURE TECHNOLOGY**

New York City College of Technology at the City University of New York

**Date:** Thursday, September 22 12:42 – 2:30 pm

Present: Professors: Sanjive Vaidya (chair), Phillip Anzalone, Alexander Aptekar, llya Azaroff, Esteban Beita, Ting Chin, Ken Conzelmann, Lia Dikigoropoulou, Michael Duddy, Wendell Edwards, Claudia Hernandez-Feiks, Jihun Kim, Paul C. King, Anne Leonhardt, Agustin (Tim) Maldonado, Jill Bouratoglou, Jason Montgomery, Shelley Smith, Robert Zagaroli 3rd

Excused: Barbara Mishara

Absent: None

**Tech Minute(s):**

1. Active Directory Migration
2. Novell has already been uninstalled and email will move to Outlook by October.
3. **Old & New Business**
4. Good and welfare: IIIya will be presenting in Saratoga / Philip Anzalone will be presenting and making the key note speech at the AIA NY center for Architecture.
5. Field Trip Forms: Please notify all adjuncts of protocol & Title IX Training: MANDATORY
6. Title IX: Interns required to complete training.
7. Multiple Positions Forms: Due: complete
8. Adjuncts Personal Files: SET’s and Observations should be available to the entire faculty in order to be prepared before making observations.
9. **Reports and Presentations**
10. **Review Survey Data:**
11. The survey data was gathered from 100 students.
12. Results of the survey will be sent to everyone as a pdf by Alexander.
13. **AAS Review**
14. (Claudia) There is a need to address class sizes in the foundation courses, currently the limit is 22, however it should be 18 to improve the class learning and time the instructor spends with each student.
15. (Tim) After reviewing the report, all faculty should list all the courses they have taught, instead of listing them by semester.
16. (Jason) The first draft of the proposal is a responsible response to the NAAB questions and requirements.
17. **Voting**
18. Formally submit report this September 30th, pending edits which will be addressed later.
    * **19 for, 0 against**
19. Combining Vis I and Foundations and making it 5 credits.
    * **18 for, 1 against**
20. Creation of the course “Introduction to Architecture” (3 credits) with a component to support the foundation courses.
    * **19 for, 0 against**
21. 1121 will now become a 3 credit course.
    * **19 for, 0 against**
22. 2321 History from 1900 to now.
    * **No change, no vote.**
23. Site Planning will be introduced in the 3rd semester and the credits increased to 3. Also, a design component will be added to the course.
    * **18 for, 1 against**
24. The number of students should be limited to 15 in design 3 and 4. The course should be 5 credits and 9 contact hours.
    * **17 for, 0 against. (2 faculty members: Shelley Smith and Illya Azaroff, departed the meeting prior to the vote.)**

**ARCHITECTURE TECHNOLOGY**

New York City College of Technology at the City University of New York

**Date:** Tuesday, September 27, 2016

**Present**: Michael Duddy, Sanjive Vaidya, Phillip Anzalone, Agustin (Tim) Maldonado, Esteban Beita, Alexander Aptekar, Jason Montgomery, Paul C. King, Illya Azaroff, Jill Bouratoglou, Anne Leonhardt, Lia Dikigoropoulou, Barbara Smith Mishara, Jill Bouratoglou, Shelley Smith

**Late:** Claudia Hernandez, Wendell Edwards, Ken Conzelmann,

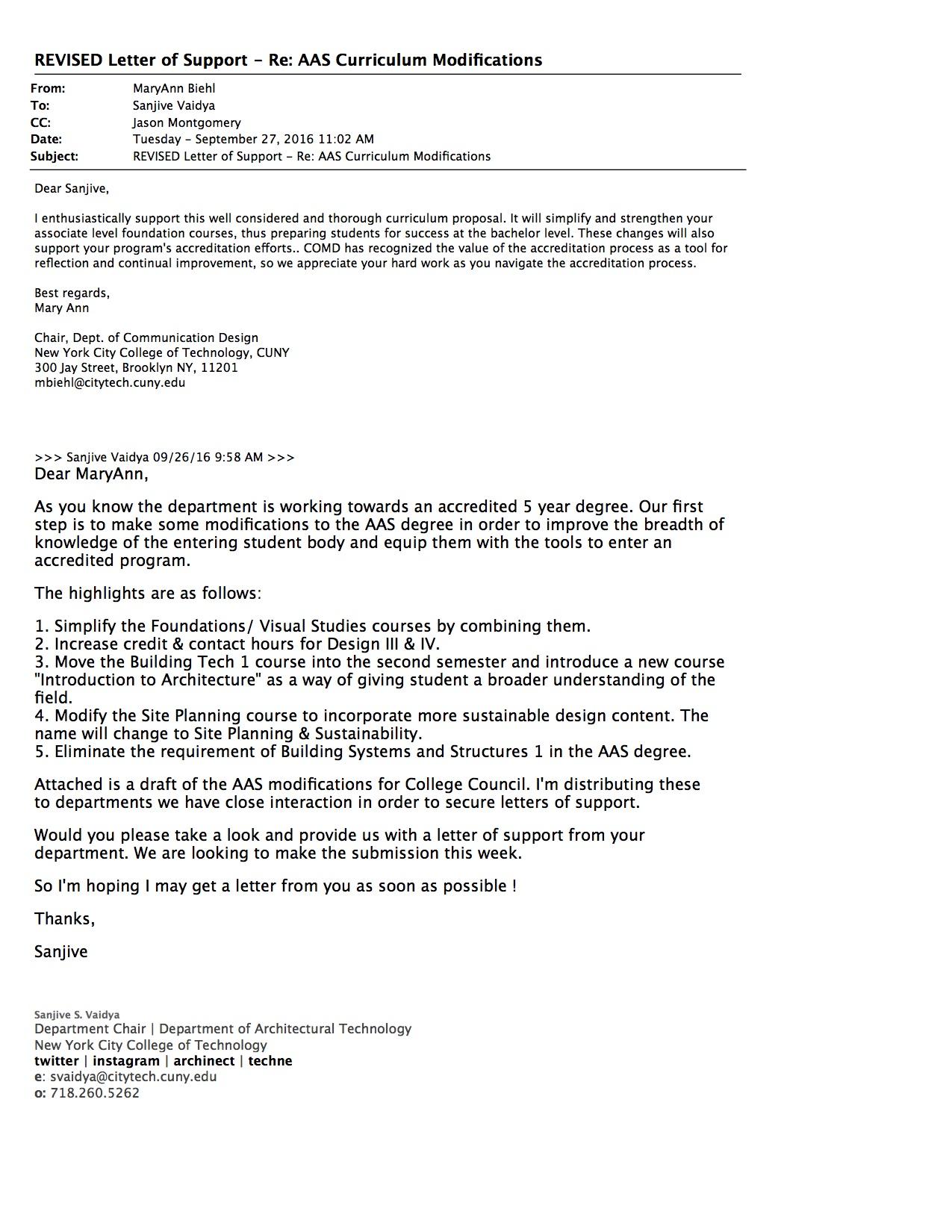
**Excused**: Jihun Kim, Robert Zagaroli 3rd ,Ting Chin

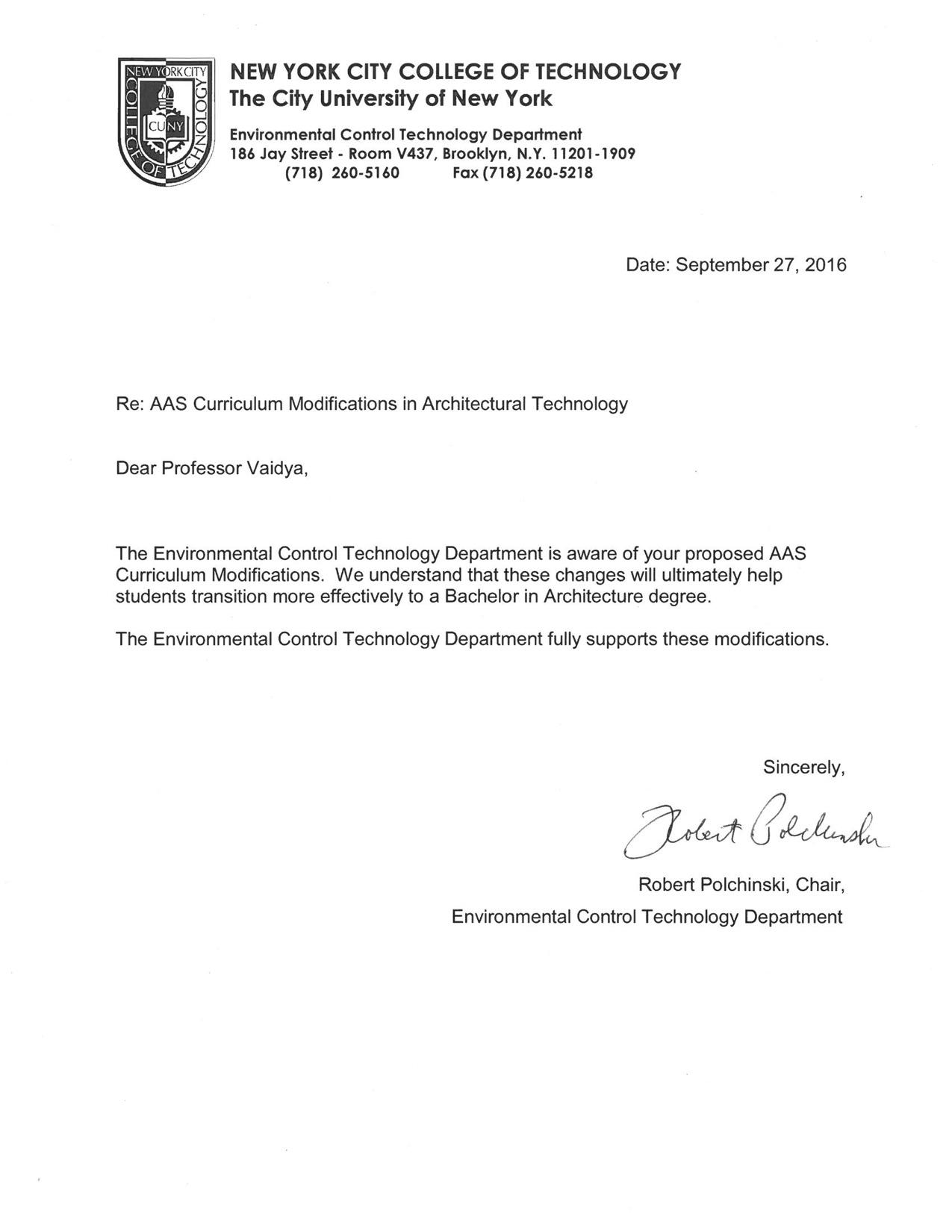
1. **Review of Curriculum Proposal for AAS Submission Report**
2. (Paul King) The Intro to Architecture course is made to support the foundation courses.
3. (Jill Bouratoglou) In regard to the B-Tech courses, If B-Tech 1 moves, do we remove B-Tech 4, no other schools have four B-Tech courses.
4. (Paul King) If B-Tech one is to be made stronger, than it has to incorporate some element of drawing skills.
5. (Jill and Lia) There is some concern regarding the problems of changing course numbers, which would affect the planning of courses.
6. (Alexander Aptekar) Why not change the content of the courses instead of the number to prevent any problems.
7. (Shelley Smith) If we add credits to B-Tech 1& 2 we can make them stronger, so they are more prepared for B-Tech 3.
8. (Paul King) We have to be careful not to overload the first semester with too many credits, or it might result in students dropping and failing.
9. (IIIya Azaroff) The proposed “Intro to Architecture “ course needs to address the basic concepts of architecture, what is architecture, what architects do, and experiencing architecture. At the moment the course is being packed with too many ideas, when it should be addressing the basic concepts of architecture in order to give students and ideas of what to expect later on.
10. (IIIya Azaroff) Intro to Architecture and B-Tech 1 should course of their own and should not be combined. Intro to Arch is there to show what students will be doing for the rest of their life so they can decide if they want to continue in architecture.
11. (Jason Montgomery) Another possibility is to make B-Tech 4 a capstone?
12. (Paul King) Why not reposition B-Tech 4 to provide an introduction of the next two years. Nothing is happening in the 3rd and 4th year to reinforce the students experience in architecture or it could also provide support for thesis. We should keep B-Tech 1,2,3 as they are and revisit B-Tech 4 and its content at a later time.
13. (Jason Montgomery) B-Tech 1 and 2 have the largest failing rates of 60 to 70%, maybe we are pushing too much content into these courses.
14. (Sanjive) We have two options:
    1. B-Tech is taught in the first semester, combining Intro to Arch and B-Tech 1 or
    2. Intro to Arch stays as a separate course and B-Tech 1 is moved back
15. (Paul King) Many students in the first semester are taking remedial courses when they enter our program, which means they are already out of sequence, making moving B-Tech 1 backwards more important so they can catch up and be part of the entire cohort.
16. (Alexander Aptekar) Alexander proposed to create a two credit research topics class, possibly making it a capstone and a required class to complete the AAS degree. This would take the place in the 4th semester and could support Design IV and B-Tech III. This would force students to finish the AAS degree and improve numbers in our department.
17. (Barbara Mishara) The History and Site Planning courses have to remain three credits, they cannot be two.
18. **Voting**
19. The voting process for the future of “Intro to Architecture and “B-tech 1” was finalized through a process of elimination, where six options were created. The six options also gave possibilities to how the remaining two credits would be used.
    * Option 1: Intro to Arch (4), B-Tech 1 (4)
    * Option 2: Intro to Arch (4), B-Tech II (4)
    * Option 3: Site Planning (2), Structure (3)
    * Option 4: Intro to Structures (2), (semester 4)
    * Option 5: Intro ti Arch (4), Structures (3)
    * Option 6: New two credit mystery course

Final Voting:

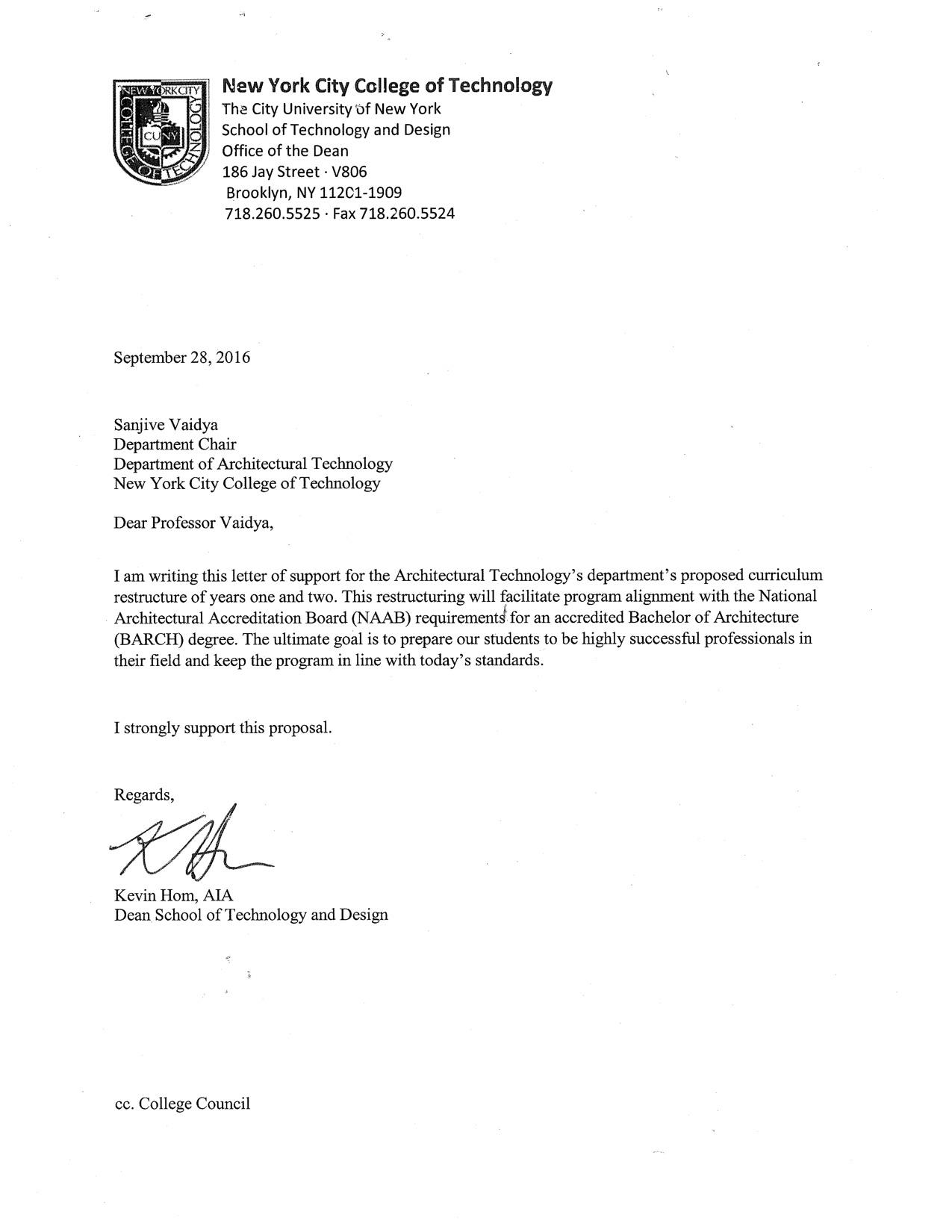
* **Option 1**
* **for: 13**
* **against: 5**
* **abstain: 2**

**Consultation with Affected Departments**





**Letter from Academic Dean**



**Library Resources & Information Literacy**

**LIBRARY RESOURCES & INFORMATION LITERACY**

**Course proposer:** please complete boxes 1-4. **Library faculty subject selector:** please complete box 5.

|  |  |  |
| --- | --- | --- |
| **1** | **Title of proposal**  Introduction to Architecture | **Department/Program**  Architectural Technology |
|  | **Proposed by** (include email & phone)  Michael Duddy MDuddy@CityTech.Cuny.Edu  917.517.4666 | **Expected date course(s) will be offered**  Fall 2017  **# of students** 16-25 |

|  |  |
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| **2** | **Are City Tech library resources sufficient for course assignments? Please elaborate.**  ***Yes. Course will be a direct response to current events with a reliance on existing resources that already exist in the library in support of other Architecture courses. Current event resources needed will include periodicals and newspapers and web related resources.*** |

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| **3** | **Are additional resources needed for course assignments? Please provide details about format of resources (e.g., ebooks , journals, DVDs, etc.), author, title, publisher, edition, date, and price.**  ***No specific additional resources can be identified at this time. As each section of this course may focus on a different topic or topical event requests for additional resources will be made as needed the semester prior to the offering of any section.*** |

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| **4** | **Library faculty focus on strengthening students' information literacy skills in finding, evaluating, and ethically using information. We can collaborate on developing assignments and offer customized information literacy instruction and research guides for your course.**  **Do you plan to consult with the library faculty subject specialist for your area? Please elaborate.**  ***Yes - the semester prior to the running of any section.*** |

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| **5** | **Library Faculty Subject Selector\_ Prof. Nora Almeida\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**\_\_\_\_\_\_\_\_\_\_\_\_\_  Comments and Recommendations:  ***This course will provide an excellent opportunity for the library to work with Architectural Technology faculty to help further develop the library’s collection. The library will ensure that upcoming monograph purchases reflect the focus of new and revised courses covering foundational architecture concepts and design principles in a global context. The course will enhance collection development overall in both Architectural Technology and related fields.***  **Date *September 30, 2016*** |

|  |  |  |
| --- | --- | --- |
| **1** | **Title of proposal**  History of World Architecture to 1900 | **Department/Program**  Architectural Technology |
|  | **Proposed by** (include email & phone)  Michael Duddy MDuddy@CityTech.Cuny.Edu  917.517.4666 | **Expected date course(s) will be offered**  Fall 2017  **# of students** 16-25 |

|  |  |
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| **2** | **Are City Tech library resources sufficient for course assignments? Please elaborate.**  ***Yes. Course will be a direct response to current events with a reliance on existing electronic and print resources from library holdings that support Architecture courses. Resources needed will include periodicals (scholarly and trade journals), newspapers, and internet resources.*** |

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| **3** | **Are additional resources needed for course assignments? Please provide details about format of resources (e.g., ebooks , journals, DVDs, etc.), author, title, publisher, edition, date, and price.**  ***No specific additional resources can be identified at this time. As each section of this course may focus on a different topic or topical event requests for additional resources will be made as needed the semester prior to the offering of any section.*** |

|  |  |
| --- | --- |
| **4** | **Library faculty focus on strengthening students' information literacy skills in finding, evaluating, and ethically using information. We can collaborate on developing assignments and offer customized information literacy instruction and research guides for your course.**  **Do you plan to consult with the library faculty subject specialist for your area? Please elaborate.**  ***Yes - the semester prior to the running of any section.*** |

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| **5** | **Library Faculty Subject Selector\_ Prof. Nora Almeida\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**\_\_\_\_\_\_\_\_\_\_\_\_\_  Comments and Recommendations:  ***This course will provide an excellent opportunity for the library to work with Architectural Technology faculty to help further develop the library’s collection. The library will ensure that upcoming monograph purchases reflect the focus of new and revised courses covering foundational architecture concepts and design principles in a global context. The course will enhance collection development overall in both Architectural Technology and related fields.***  **Date *September 30, 2016*** |

# CHANCELLOR’S UNIVERSITY REPORT DOCUMENTS

Section AIII: Changes in Degree Programs

**The following revisions are proposed for the AAS in ARCHITECTURAL TECHNOLOGY**

**Program: AAS in ARCHITECTURAL TECHNOLOGY**

**Program Code:**

**Effective Date: 2017 FALL**

|  |  |
| --- | --- |
| **FROM:** | **TO:** |
| **GENERAL EDUCATION COMMON CORE 20-21**  **I – REQUIRED CORE (3 COURSES, 11-12 CREDITS)**  ENG 1101 English Composition I 3  ~~MAT 1375 Precalcus or higher 4~~  PHYS 1433 General Physics I: Algebra Based 4  or  PHYS 1441 General Physics I: Calculus Based 5  **II – FLEXIBLE CORE (3 COURSES, 9 CREDITS)**  In addition to the required courses listed below, select one course from two of the other four areas; no more than two courses may be selected from any discipline. 6  **World Cultures and Global Issues**  Any approved course  **US Experience in its Diversity**  Any approved course  **Individual and Society**  Any approved course    **Creative Expression**  ARCH 2321/ARTH23215 History of Architecture 1900 to the Present 3  **Scientific World**  Any approved course  **Writing Intensive Requirement**  Students at New York City College of Technology must complete two courses designated WI for the associate level, one from GenEd and one from the major; and two additional courses designated WI for the baccalaureate level, one from GenEd and one from the major.  **PROGRAM-SPECIFIC DEGREE REQUIREMENTS 44**  ~~ARCH 1110~~ ~~Architectural Design I: Foundations~~ ~~3~~  ~~ARCH 1121 History of Architectural Technology 2~~  ARCH 1130 Building Technology I 3  ~~ARCH 1191 Visual Studies I 2~~  ~~ARCH 1210 Architectura~~l ~~Design II: Foundations~~ ~~3~~  ARCH 1230 Building Technology II 3  ARCH 1250 Site Planning 2  ~~ARCH 1291 Visual Studies II 2~~  ARCH 2310 Architectural Design III 4  ARCH 2321 History of Architecture 1900 to present Met as GenEd  ARCH 2330 Building Technology III 4  ARCH 2370 Building Systems 3  ARCH 2410 Architectural Design IV 4  ARCH 2430 Building Technology IV 3  ARCH 2480 Structures I 3  ENG 1101 English Composition I Met as GenEd  ~~MAT 1375 Precalculus or higher Met as GenEd~~  PHYS 1433 General Physics I: Algebra Based Met as GenEd  or  PHYS 1441 General Physics I: Calculus Based Met as GenEd  ELECTIVES (CHOOSE ONE)  ARCH 3550 Building Performance Workshop 3  ARCH 3590 Parametric Computation, Materials and Fabrication 3  ARCH 3662 Government Regulations and Approvals 3  **ADD ADDITIONAL COURSES**  **TOTAL PROGRAM-SPECIFIC REQUIRED AND ELECTIVE COURSES** **44**  **TOTAL NYSED LIBERAL ARTS AND SCIENCE CREDITS 20-21**  **TOTAL CREDITS REQUIRED FOR THE DEGREE 64-65**  For progression in and graduation from the Architectural Technology program, a minimum grade of “C” is required in the following courses in the major: all required Design and Construction Technology Studios (ARCH 1110, ARCH 1210, ARCH 2310, and ARCH 2410), ~~and all required Visual Studies (ARCH 1191, ARCH 1291)~~ and Building Technology courses (ARCH 1130, ARCH 1230, ARCH 2330, ARCH 2430). | **GENERAL EDUCATION COMMON CORE 20-21**  **I – REQUIRED CORE (3 COURSES, 11-12 CREDITS)**  ENG 1101 English Composition I 3  MAT 1275 \_ College Algebra and Trigonometry or higher 4  PHYS 1433 General Physics I: Algebra Based 4  or  PHYS 1441 General Physics I: Calculus Based 5  **II – FLEXIBLE CORE (3 COURSES, 9 CREDITS)**  In addition to the required courses listed below, select one course from two of the other four areas; no more than two courses may be selected from any discipline. 6  **World Cultures and Global Issues**  Any approved course  **US Experience in its Diversity**  Any approved course  **Individual and Society**  Any approved course    **Creative Expression**  ARCH 2321/ARTH23215 History of Architecture 1900 to the Present 3  **Scientific World**  Any approved course  **Writing Intensive Requirement**  Students at New York City College of Technology must complete two courses designated WI for the associate level, one from GenEd and one from the major; and two additional courses designated WI for the baccalaureate level, one from GenEd and one from the major.  **PROGRAM-SPECIFIC DEGREE REQUIREMENTS 44**  ARCH 1112 Architectural Design I: Foundations & Visual Studies 5  ARCH 1121 History of World Architecture to 1900 2  ARCH 1130 Building Technology I 3  ARCH 1212 Architectural Design II: Foundations & Visual Studies 5  ARCH 1230 Building Technology II 3  ARCH 1250 Site Planning 2  ARCH 2310 Architectural Design III 4  ARCH 2321 History of Architecture 1900 to present Met as GenEd  ARCH 2330 Building Technology III 4  ARCH 2370 Building Systems 3  ARCH 2410 Architectural Design IV 4  ARCH 2430 Building Technology IV 3  ARCH 2480 Structures I 3  ENG 1101 English Composition I Met as GenEd  MAT 1275 \_ College Algebra and Trigonometry or higher Met as GenEd  PHYS 1433 General Physics I: Algebra Based Met as GenEd  or  PHYS 1441 General Physics I: Calculus Based Met as GenEd  ELECTIVES (Choose One)  ARCH 3550 Building Performance Workshop 3  ARCH 3551 Sustainability: History and Practice 3  ARCH 3570 Lighting and Acoustics 3  ARCH 3590 Parametric Computation, Materials Fabrication 3 ARCH 3591 Computer assisted Architectural Animation 3  ARCH 3609 Integrated Software in the Architectural Office 3 ARCH 3631 Advance Material Workshop 3  ARCH 3640 Historic Preservation Theory and Practice 3 ARCH 3662 Government Regulations and Approvals 3 ARCH 3690 Intermediate Computation and Fabrication 3  ARCH 3691 Advanced Design and Building Information Modeling 3  ARCH 3900 Study Abroad 3  ARCH 4709 Advanced 3D Modeling and Rendering 3  ARCH 4740 Detail and Construction of Existing Buildings 3 ARCH 4780 Case Studies in Structural Engineering 3  ARCH 4791 Advanced Design and Building Information  Modeling and Integrated Project Delivery 3  ARCH 4831 Design To Build 3  ARCH 4890 Computation and Fabrication: Performative Architecture 3  ARCH 4900 Internship in Architectural Technology 3  **TOTAL PROGRAM-SPECIFIC REQUIRED AND ELECTIVE COURSES** **44**  **TOTAL NYSED LIBERAL ARTS AND SCIENCE CREDITS 20-21**  **TOTAL CREDITS REQUIRED FOR THE DEGREE 64-65**  For progression in and graduation from the Architectural Technology program, a minimum grade of “C” is required in the following courses in the major: all required Design and Construction Technology Studios (ARCH 1112, ARCH 1212, ARCH 2310, and ARCH 2410) and Building Technology courses (ARCH 1130, ARCH 1230, ARCH 2330, ARCH 2430). |
|  |  |

# Section AIV: New Courses

**New courses to be offered in the Architectural Technology department**

|  |  |
| --- | --- |
| **Department(s)** | **Department of Architectural Technology** |
| **Academic Level** | **[ X ] Regular  [   ] Compensatory  [   ] Developmental  [   ] Remedial** |
| **Subject Area** | ARCHITECTURE |
| **Course Prefix** | ARCH |
| **Course Number** | 1101 |
| **Course Title** | Introduction to Architecture |
| **Catalog Description** | Understanding architecture is achieved by developing a visual literacy of New York City’s built environment. Using the city as a living laboratory, students explore concepts of design, composition, and construction by sketching and writing about their direct experience of buildings. Accompanying lectures focus on freehand drawing techniques, basic drafting skills and graphic standards, concepts of composition, writing about buildings and their construction, and reading architectural drawings. Students develop graphic skills and the basic foundation to talk, write, and graphically express architecture and its construction. |
| **Prerequisite** | none |
| **Corequisite** | none |
| **Pre- or corequisite** | none |
| **Credits** | 3 |
| **Contact Hours** | 1 classroom hour, 4 lab hours |
| **Liberal Arts** | **[ ] Yes  [X] No** |
| **Course Attribute (e.g. Writing Intensive, etc)** | none |
| **Course Applicability** | |  |  |  | | --- | --- | --- | | **[ X ] Major** |  | | | **[ ] Gen Ed Required** | **[ ] Gen Ed - Flexible** | **[ ] Gen Ed - College Option** | | **[ ] English Composition** | **[ ] World Cultures** | **[ ] Speech** | | **[ ] Mathematics** | **[ ] US Experience in its Diversity** | **[ ] Interdisciplinary** | | **[ ] Science** | **[ ] Creative Expression** | **[ ] Advanced Liberal Arts** | |  | **[ ] Individual and Society** |  | |  | **[ ] Scientific World** |  | |
| **Effective Term** | Fall 2017 |

**Rationale:** This course provides a broad introduction to the discipline of Architecture and addresses the varied levels of our incoming students’ prior knowledge and preparedness for college. This course serves to scaffold the design sequence, the building technology sequence, and the history sequence.

# Section AV: Changes to Existing Courses

**Changes to be offered in the Architectural Technology department**

|  |  |  |  |
| --- | --- | --- | --- |
| **CUNYFirst Course ID** | ARCH 1110 |  |  |
| **FROM:** |  | **TO:** |  |
| **Department(s)** |  | **Department(s)** |  |
| **Course** | ~~ARCH 1110 Architectural Design I: Foundations~~ | **Course** | ARCH 1112 Architectural Design I: Foundations and Visual Studies |
| **Prerequisite** |  | **Prerequisite** |  |
| **Corequisite** | ~~ARCH 1191~~ | **Corequisite** | none |
| **Pre- or corequisite** | ~~none~~ | **Pre- or corequisite** |  |
| **Hours** | ~~0 cl hrs, 6 lab hours~~ | **Hours** | 1 cl hr, 8 lab hours |
| **Credits** | ~~3~~ | **Credits** | 5 |
| **Description** | ~~The first course in the one-year foundation sequence, which increases the student’s ability to perceive visual cues, create visual design, formulate concepts, and render ideas in two or three dimensions. Students will use a combination of hand and digital skills to aid in the creation and interpretation of three dimensional objects and space, and the delineation of the same using standard projection systems.~~ | **Description** | A first-year foundational course that increases students’ ability to perceive visual cues, create visual design, formulate concepts, and render ideas in two or three dimensions. Students use a combination of hand and digital skills to aid in the creation and interpretation of three dimensional objects and space, and the delineation of the same using standard projection systems. The Visual Studies component of the course equips students to make aesthetic evaluations and translate information into graphic representations and visual designs. |
| **Requirement Designation** |  | **Requirement Designation** |  |
| **Liberal Arts** | [ ] Yes [ ] No | **Liberal Arts** | [ ] Yes [ ] No |
| **Course Attribute (e.g. Writing Intensive, Honors, etc** |  | **Course Attribute (e.g. Writing Intensive, Honors, etc** |  |
| **Course Applicability** | |  | | --- | | [ ] Major | | [ ] Gen Ed Required | | [ ] English Composition | | [ ] Mathematics | | [ ] Science | | [ ] Gen Ed - Flexible | | [ ] World Cultures | | [ ] US Experience in its Diversity | | [ ] Creative Expression | | [ ] Individual and Society | | [ ] Scientific World | | [ ] Gen Ed - College Option | | [ ] Speech | | [ ] Interdisciplinary | | [ ] Advanced Liberal Arts | | **Course Applicability** | |  | | --- | | [x ] Major | | [ ] Gen Ed Required | | [ ] English Composition | | [ ] Mathematics | | [ ] Science | | [ ] Gen Ed - Flexible | | [ ] World Cultures | | [ ] US Experience in its Diversity | | [ ] Creative Expression | | [ ] Individual and Society | | [ ] Scientific World | | [ ] Gen Ed - College Option | | [ ] Speech | | [ ] Interdisciplinary | | [ ] Advanced Liberal Arts | |
| **Effective Term** | Fall 2017 |  |  |

**Rationale:** Provides for improved integration of design and visualization skills. Resolves significant scheduling and registration challenges.

**Changes to be offered in the Architectural Technology department**

|  |  |  |  |
| --- | --- | --- | --- |
| **CUNYFirst Course ID** | ARCH 1121 |  |  |
| **FROM:** |  | **TO:** |  |
| **Department(s)** |  | **Department(s)** |  |
| **Course** | ~~ARCH 1121 History of Architectural Technology~~ | **Course** | ARCH 1121 History of World Architecture to 1900 |
| **Prerequisite** |  | **Prerequisite** |  |
| **Corequisite** |  | **Corequisite** |  |
| **Pre- or corequisite** | ~~CUNY proficiency in Reading and Writing; or CUNY proficiency in Reading with co requisite of ENG 092W if part of a learning community; or for high school students enrolled through collaborative programs or City Poly High School who have not yet taken the SAT or completed Regents requirements, a PSAT score of 48 or higher in Verbal and/or Writing or successful completion of six units of high school English with an average of 80 or above and a high school recommendation.~~ | **Pre- or corequisite** | ENG 1101 |
| **Hours** | ~~2 cl hrs, 0 lab hours~~ | **Hours** | 1 cl hr, 2 lab hours |
| **Credits** | 2 | **Credits** | 2 |
| **Description** | ~~The study of architectural technology from prehistoric times to the present stressing the development of structural systems and the exploration of materials. This course will explore the interaction of building design and historic socio-economic determinants.~~ | **Description** | Anhistorical survey of architecture from early civilizations to the start of the Industrial Revolution. Architecture is examined as an expression of the culture and life of a society. Class sessions study architecture from around the world within its social, temporal, and spatial contexts. While the history of Western architecture is covered from ancient Egypt to the Enlightenment, a special focus is directed to the architectures of the Far East, South Asia, Africa, pre-Columbian Latin America, the Islamic World, and elsewhere to provide a comprehensive overview of the richness and diversity of architecture as a cultural artifact. |
| **Requirement Designation** |  | **Requirement Designation** |  |
| **Liberal Arts** | [ ] Yes [ ] No | **Liberal Arts** | [ ] Yes [ ] No |
| **Course Attribute (e.g. Writing Intensive, Honors, etc** |  | **Course Attribute (e.g. Writing Intensive, Honors, etc** |  |
| **Course Applicability** | |  | | --- | | [ ] Major | | [ ] Gen Ed Required | | [ ] English Composition | | [ ] Mathematics | | [ ] Science | | [ ] Gen Ed - Flexible | | [ ] World Cultures | | [ ] US Experience in its Diversity | | [ ] Creative Expression | | [ ] Individual and Society | | [ ] Scientific World | | [ ] Gen Ed - College Option | | [ ] Speech | | [ ] Interdisciplinary | | [ ] Advanced Liberal Arts | | **Course Applicability** | |  | | --- | | [ x ] Major | | [ ] Gen Ed Required | | [ ] English Composition | | [ ] Mathematics | | [ ] Science | | [ ] Gen Ed - Flexible | | [ ] World Cultures | | [ ] US Experience in its Diversity | | [ ] Creative Expression | | [ ] Individual and Society | | [ ] Scientific World | | [ ] Gen Ed - College Option | | [ ] Speech | | [ ] Interdisciplinary | | [ ] Advanced Liberal Arts | |
| **Effective Term** | Fall 2017 |  |  |

**Rationale:** Credit increase allows for increased course content and depth of investigation. Content change reflects NAAB requirements for global culture and cultural diversity.

**Changes to be offered in the Architectural Technology department**

|  |  |  |  |
| --- | --- | --- | --- |
| **CUNYFirst Course ID** | ARCH 1210 |  |  |
| **FROM:** |  | **TO:** |  |
| **Department(s)** |  | **Department(s)** |  |
| **Course** | ~~ARCH 1210 Architectural Design II: Foundations~~ | **Course** | ARCH 1212 Architectural Design II: Foundations and Visual Studies |
| **Prerequisite** | ~~ARCH 1110 and ARCH 1191 both with a grade of C or higher~~ | **Prerequisite** | ARCH 1112 OR ARCH 1110 and ARCH 1191 with a grade of C or higher |
| **Corequisite** | ~~ARCH 1291~~ | **Corequisite** | none |
| **Pre- or corequisite** |  | **Pre- or corequisite** |  |
| **Hours** | ~~0 cl hrs, 6 lab hours~~ | **Hours** | 1 cl hr, 8 lab hours |
| **Credits** | ~~3~~ | **Credits** | 5 |
| **Description** | ~~The second course in the one year foundation sequence, which increases the student’s ability to perceive visual cues, create visual design, formulate concepts, and render ideas in two or three dimensions. Students will use a combination of hand and digital skills to aid in the creation and interpretation of three dimensional objects and space, and the delineation of the same using standard projection systems.~~ | **Description** | A first-year foundational course that advances students’ ability to perceive visual cues, create visual design, formulate concepts, and render ideas in two or three dimensions. Students use a combination of hand and digital skills to aid in the creation and interpretation of three dimensional objects and space, and the delineation of the same using standard projection systems.The Visual Studies component of the course builds on the student's knowledge of architectural representation and visualization and focuses particularly on: precise crafting of physical and analogue models, architectural presentations, analogue and digital rendering techniques. |
| **Requirement Designation** |  | **Requirement Designation** |  |
| **Liberal Arts** | [ ] Yes [ ] No | **Liberal Arts** | [ ] Yes [ ] No |
| **Course Attribute (e.g. Writing Intensive, Honors, etc** |  | **Course Attribute (e.g. Writing Intensive, Honors, etc** |  |
| **Course Applicability** | |  | | --- | | [ ] Major | | [ ] Gen Ed Required | | [ ] English Composition | | [ ] Mathematics | | [ ] Science | | [ ] Gen Ed - Flexible | | [ ] World Cultures | | [ ] US Experience in its Diversity | | [ ] Creative Expression | | [ ] Individual and Society | | [ ] Scientific World | | [ ] Gen Ed - College Option | | [ ] Speech | | [ ] Interdisciplinary | | [ ] Advanced Liberal Arts | | **Course Applicability** | |  | | --- | | [ x ] Major | | [ ] Gen Ed Required | | [ ] English Composition | | [ ] Mathematics | | [ ] Science | | [ ] Gen Ed - Flexible | | [ ] World Cultures | | [ ] US Experience in its Diversity | | [ ] Creative Expression | | [ ] Individual and Society | | [ ] Scientific World | | [ ] Gen Ed - College Option | | [ ] Speech | | [ ] Interdisciplinary | | [ ] Advanced Liberal Arts | |
| **Effective Term** | Fall 2017 |  |  |

**Rationale:** Provides for improved integration of design and visualization skills. Resolves significant scheduling and registration challenges.

**Changes to be offered in the Architectural Technology department**

|  |  |  |  |
| --- | --- | --- | --- |
| **CUNYFirst Course ID** | AAS Capstone Elective |  |  |
| **FROM:** |  | **TO:** |  |
| **Department(s)** |  | **Department(s)** |  |
| **Course** | Chose one:  ~~ARCH 3550, ARCH 3590 or ARCH 3662~~ | **Course** | ARCH 3550, 3551, 3590, 3591, 3609, 3631,3640, 3690, 3691, 3900, 4709, 4740, 4780, 4831, 4890, 4900 |
| **Prerequisite** |  | **Prerequisite** |  |
| **Corequisite** |  | **Corequisite** |  |
| **Pre- or corequisite** |  | **Pre- or corequisite** |  |
| **Hours** |  | **Hours** |  |
| **Credits** | ~~3~~ | **Credits** | 3 |
| **Description** | ~~Chose one elective from the list.~~ | **Description** | Chose one elective from the list. |
| **Requirement Designation** |  | **Requirement Designation** |  |
| **Liberal Arts** | [ ] Yes [ ] No | **Liberal Arts** | [ ] Yes [ ] No |
| **Course Attribute (e.g. Writing Intensive, Honors, etc** |  | **Course Attribute (e.g. Writing Intensive, Honors, etc** |  |
| **Course Applicability** | |  | | --- | | [ ] Major | | [ ] Gen Ed Required | | [ ] English Composition | | [ ] Mathematics | | [ ] Science | | [ ] Gen Ed - Flexible | | [ ] World Cultures | | [ ] US Experience in its Diversity | | [ ] Creative Expression | | [ ] Individual and Society | | [ ] Scientific World | | [ ] Gen Ed - College Option | | [ ] Speech | | [ ] Interdisciplinary | | [ ] Advanced Liberal Arts | | **Course Applicability** | |  | | --- | | [x ] Major | | [ ] Gen Ed Required | | [ ] English Composition | | [ ] Mathematics | | [ ] Science | | [ ] Gen Ed - Flexible | | [ ] World Cultures | | [ ] US Experience in its Diversity | | [ ] Creative Expression | | [ ] Individual and Society | | [ ] Scientific World | | [ ] Gen Ed - College Option | | [ ] Speech | | [ ] Interdisciplinary | | [ ] Advanced Liberal Arts | |
| **Effective Term** | Fall 2017 |  |  |

**Rationale:** Allow students to explore different aspects of the architectural field.

**Changes to be required in the Architectural Technology department/offered by the Math Department**

|  |  |  |  |
| --- | --- | --- | --- |
| **CUNYFirst Course ID** | Gen Ed MAT requirement |  |  |
| **FROM:** | ~~MAT 1375~~ | **TO:** | MAT 1275 |
| **Department(s)** | ~~MAT~~ | **Department(s)** | MAT |
| **Course** | MAT 1375 | **Course** | MAT 1275 |
| **Prerequisite** |  | **Prerequisite** |  |
| **Corequisite** |  | **Corequisite** |  |
| **Pre- or corequisite** |  | **Pre- or corequisite** |  |
| **Hours** |  | **Hours** |  |
| **Credits** |  | **Credits** |  |
| **Description** | ~~Gen Ed MAT requirement~~ | **Description** | Gen Ed MAT requirement |
| **Requirement Designation** |  | **Requirement Designation** |  |
| **Liberal Arts** | [ ] Yes [ ] No | **Liberal Arts** | [ ] Yes [ ] No |
| **Course Attribute (e.g. Writing Intensive, Honors, etc** |  | **Course Attribute (e.g. Writing Intensive, Honors, etc** |  |
| **Course Applicability** | |  | | --- | | [ ] Major | | [ ] Gen Ed Required | | [ ] English Composition | | [ ] Mathematics | | [ ] Science | | [ ] Gen Ed - Flexible | | [ ] World Cultures | | [ ] US Experience in its Diversity | | [ ] Creative Expression | | [ ] Individual and Society | | [ ] Scientific World | | [ ] Gen Ed - College Option | | [ ] Speech | | [ ] Interdisciplinary | | [ ] Advanced Liberal Arts | | **Course Applicability** | |  | | --- | | [ ] Major | | [ x ] Gen Ed Required | | [ ] English Composition | | [ x ] Mathematics | | [ ] Science | | [ ] Gen Ed - Flexible | | [ ] World Cultures | | [ ] US Experience in its Diversity | | [ ] Creative Expression | | [ ] Individual and Society | | [ ] Scientific World | | [ ] Gen Ed - College Option | | [ ] Speech | | [ ] Interdisciplinary | | [ ] Advanced Liberal Arts | |
| **Effective Term** | Fall 2017 |  |  |

**Rationale:** To better align the level and content of mathematics to the need of the architectural courses.

1. http://www.naab.org/architecture-programs/school-search/ [↑](#footnote-ref-1)
2. New York State Office of the Professions recognizes a NAAB accredited degree as contributory to the Education Requirements for Licensure, http://www.op.nysed.gov/prof/arch/archlic.htm. [↑](#footnote-ref-2)
3. See AAS description in 2016 catalogue, page 197. [↑](#footnote-ref-3)