ARTICULATION AGREEMENT
Between
KEENE STATE COLLEGE
And
ROCHESTER INSTITUTE OF TECHNOLOGY

Keene State College (hereinafter "KSC") and Rochester Institute of Technology (hereinafter "RIT") (collectively, the "Parties", and individually the "Party") effective this **24 day of October, 2024** hereby set forth in this Articulation Agreement (hereinafter the "Agreement") a program to enable admission of qualified graduates of the Bachelor of Science in Architecture (hereinafter "BS Arch") into RIT's Golisano Institute for Sustainability, Department of Architecture's M Arch program (hereinafter "RIT's M Arch Program"). This Agreement recognizes the inherent quality of education at both institutions and facilitates KSC BS Arch graduates' entrance into the RIT M Arch Program.

OBJECTIVES
The goal of this Agreement is to provide qualified graduates of KSC BS Arch program with a pre-approved advanced standing pathway to the on-campus RIT M Arch Program. This agreement effectively results in a M Arch degree program similar to those available within a single institution. This Agreement is intended to meet the educational and informational needs of KSC graduates selecting the RIT M Arch Program, including:

1. To promote an efficient transition of qualified undergraduate students from KSC to RIT.

2. To provide for the exchange of information between KSC, its students, and RIT in order to improve this program.

3. To encourage academic coordination and administrative interactions between KSC and RIT, including curricular and administrative collaboration.

PROGRAM DESCRIPTION
Qualified KSC students who graduate from KSC's BS Arch Program and meet certain academic requirements will have preferred admission status, upon application, for entrance into the RIT M Arch Program. Interested students from KSC must apply to the RIT M Arch Program during their final year of the KSC BS Arch Program. To qualify for advanced standing, students must complete KSC BS Arch courses outlined in Exhibit "A" attached to this Agreement and made a part hereof, have a minimum of 3.0 GPA, complete the RIT graduate application (fee waived), and submit a portfolio, CV, one letter of recommendation (from KSC faculty), letter of intent, official transcript, and any international documents (if applicable). Upon satisfactory completion of KSC's BS Arch Program, accepted students will be granted advanced standing into the second year of the on-campus RIT M Arch Program.

PROGRAM TERMS
The conditions under which this Agreement will be accomplished include:

1. Application: KSC graduates of KSC's BS Arch Program having a cumulative grade point average of 3.0 or higher at KSC, upon application to the RIT M Arch Program, will be granted preferred admission status. These students must follow all RIT application procedures and requirements; however, the KSC BS Arch graduates meeting these requirements will have their application fee and the Graduate Record Examination (GRE) requirements waived by RIT. RIT retains sole discretion over its admissions decisions, and nothing in this Agreement is intended to alter RIT's admissions discretion or guarantee a KSC BS Arch graduate admission to the RIT M Arch Program.

2. Advising: KSC faculty will be responsible for advising their graduates of this relationship and any requirements of the KSC baccalaureate degree.

3. Tuition, Fees, Financial Aid, and Scholarships: Admitted KSC graduates of KSC BS Arch Program are eligible for financial aid consistent with RIT's practices and procedures, and upon enrollment these students will be billed tuition and fees by RIT at its published and customary graduate program rates. The RIT M Arch program agrees to hold up to 5 scholarships of at least 30% percent of tuition equivalent in each enrollment year for those qualified KSC applicants receiving the highest application review.

4. Communications and Use of Names: The parties will collaborate on the timing of release and content of messaging related to this Agreement to ensure compliance and appropriateness of messaging for all of their respective constituencies

5. Administration: Both Parties will work together to administer the program to meet its purposes and to benefit the participating students. Towards this end, the Parties will arrange for periodic meetings on the function of the program.

6. Conflicts: If the terms of this agreement are in conflict with an existing policy at either Party, the existing policy will govern at that institution, and to the extent necessary, this Agreement will be reviewed for possible modification. Further, no provision of this Agreement is intended to prevent the other Party from complying with any regulatory or legal requirement.

ADDITIONAL RESPONSIBILITIES OF KSC

1. To designate a primary contact person for this program**.**

2. To make reasonable efforts to publicize the program among its qualified students.

ADDITIONAL RESPONSIBILITIES OF RIT

1. To designate a primary contact person for this program.

2. To regularly inform KSC of the outcomes of KSC graduates who have entered into the M Arch degree program pursuant to this Agreement.

GENERAL AGREEMENT TERMS

1. Term: This Agreement will be in effect for three (3) years from the effective date designated above. It may be renewed automatically for additional three (3) year term unless terminated pursuant to this section. Termination of this Agreement by either Party will be effective upon six (6) months written notice, or sooner by mutual consent of the Parties.

2. Review: This Agreement shall be reviewed every three (3) years and adjustments made as deemed appropriate. This Agreement is in effect until cancelled by either Party. Either Party may independently cancel this Agreement by notifying the other Party of this intent, in writing, no less than six (6) months before the intended date of cancellation. Programmatic changes that affect this Agreement shall be communicated immediately in writing to the other Party, which may result in changes to the Agreement. The Parties assume a good faith effort to continually update each other on any changes to programs and requirements.

3. Non-Discrimination: Neither Party shall discriminate against any employee, applicant, or student because of race, color, creed, sex, religion, marital status, disability, veteran status or national origin.

4. Authority: Each party warrants that it has, or its personnel have or will obtain and maintain all necessary and relevant licenses, permissions, certifications, authorizations, registrations and approvals.

5. FERPA: The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99) rules governing student records, privacy and access rights shall apply to all enrolled student records.

6. Compliance: To the extent applicable, each Party shall comply with the other Party's policies and procedures.

7. Indemnification: RIT agrees to defend, indemnify and hold harmless KSC, at RIT's expense, against any and all claims, losses, charges, penalties, liability and/or suit or other action for any injury of any nature (including death) and including reasonable attorney's fees (collectively, "Claims") brought by any third party which relate to RIT's performance under this Agreement, except to the extent any such Claims were caused or contributed to by KSC, its servants, agents, officers or employees.

   KSC agrees to defend, indemnify and hold harmless RIT, at KSC's expense, against any and all claims, losses, charges, penalties, liability and/or suit or other action for any injury of any nature (including death) and including reasonable attorney's fees (collectively, "Claims") brought by any third party which relate to KSC's performance under this Agreement, except to the extent any such Claims were caused or contributed to by RIT, its servants, agents, officers or employees.

8. Confidential Information: In the course of the activities contemplated by this Agreement, the Parties may exchange information that is clearly marked at confidential at the time of disclosure, or if disclosed orally which is subsequently identified as confidential in writing within thirty (30) days of the oral disclosure ("Confidential Information"); provided that "Confidential Information" shall not include information (a) generally known to the public, (b) already known, through legal means, to the institution receiving the information, or (c) legally obtained from a

third party. Each Party agrees to use the other Party's Confidential Information solely for the purpose of the activities contemplated by this Agreement, and not to disclose such Confidential Information to any person or entity other than its own trustees, officers, employees, agents, advisors and representatives who have a reasonable need to know the information for purposes of fulfilling their obligations to their institution.

9. Notice: Any notice or other communication required or permitted under this Agreement shall be in writing and shall be given by personal delivery, overnight delivery service, or first class mail certified return receipt requested, to the following addresses:

   If to KSC:
   Fernando del Ama Gonzalo
   Chair, Department of Architecture
   Keene State College
   229 Main St.
   Keene, New Hampshire 03435

   If to RIT:
   Seth H. Holmes
   Associate Professor
   Golisano Institute of Sustainability
   Department of Architecture
   190 Lomb Memorial Drive
   Rochester, New York 14623

10. Amendment and Waiver: No amendments to this Agreement shall be valid unless reduced to writing, signed by an authorized representative of each Party. The failure of either of the Parties at any time or times to require performance by the other of any provisions herein shall in no manner affect the right of the first-mentioned party thereafter to enforce the same. The waiver by either of the Parties of any breach of any provision hereof shall never be construed to be a waiver of any succeeding breach of any provision or a waiver of the provision itself.

11. Relationship of Parties: Each party shall perform its respective obligations hereunder as an independent contractor. Nothing contained in this Agreement shall create any agency, partnership, association or joint venture between the Parties hereto. Neither Party shall have the right or authority to create any obligation or responsibility, express or implied, on behalf of or in the sake of the other Party, or to bind the other Party contractually in any manner whatsoever. Under no circumstances, as a result of this Agreement, shall any officer, agent, employee or representative of one Party be considered an officer, agent, employee or representative of the other Party.

12. Entire agreement: This Agreement, together with its Exhibits, embodies the entire understanding of the Parties and supersedes all previous communications, representations or understandings, either oral or written, between the Parties relating to the subject matters herein. Either Party may retain a reproduction (e.g., electronic image, photocopy, or facsimile) of this Agreement which shall be considered an equivalent to the original.

13. Assignment: This Agreement may not be assigned by either Party without the express written permission of the other Party.

14. Law: This Agreement shall be governed by New York law and any action to enforce the provisions herein shall be properly venued in the state or federal courts located in Monroe County, New York.

15. The Parties agree to execute and deliver all documents, provide all information and take or forbear from taking all such action as may be necessary or appropriate to achieve the purposes of this Agreement.

Agreed:

KEENE STATE COLLEGE

_____
Dr. Melinda Treadwell
President

_____
Dr. Kirsti Sandy
Provost

_____
Dr. Karen Jennings
Dean

ROCHESTER INSTITUTE OF TECHNOLOGY

_____
Dr. Prabu David
Provost

_____
Dr. Nabil Nasr
Director, Golisano Institute for Sustainability

Articulation Agreement (EXHIBIT A) 24-OCT-2024

Between Keene State College (KSC) and Rochester Institute of Technology (RIT)
Bachelor of Science in Architecture (at KSC) and Master of Architecture (at RIT)

Introduction
The goal of this articulation agreement is to produce a streamlined, pre-approved path for BS in Architecture at Keene State College to continue into the M Arch program at RIT. Essentially this becomes a 4+2, BS/M Arch degree program similar to those available within a single institution.

Application and Enrollment
It would be expected that interested students from KSC would apply to the RIT program during their final year of the BS program. Upon satisfactory completion of the BS degree at KSC, accepted students would be granted advanced standing into the second year of the RIT program.

Scholarships
The RIT M Arch program agrees to hold up to three (3) scholarships of at least 30 percent of tuition equivalent in each enrollment year for those qualified KSC applicants receiving the highest application review.

Review and Continuation
This agreement shall be reviewed periodically, and adjustments made as deemed appropriate. This agreement is in effect until cancelled by either party. Either college may independently cancel this agreement by notifying the partner college of this intent, in writing, no less than six months before the intended date of cancellation. Programmatic changes that affect this agreement shall be communicated immediately in writing to the other party. Changes to the agreement may then be required.

Curriculum Analysis Overview
The following table illustrates the RIT first year courses and the corresponding KSC courses that constitute their equivalent.

RIT First Year Courses (credits)	**KSC Required Courses** (credits)
ARCH-611 Architectural Representation I (3)	ARCH 180 Introduction to Architectural Design (4) IAART 103 Three-Dimensional Design (4) – or – * ARCH 120 Arch Visual/Communication (4)
ARCH-612 Architectural Representation II (3)	ARCH 180 Introduction to Architectural Design (4) * ARCH 220 Architectural Representation (4) – or - Approved equivalent
ARCH-621 Architectural History I (3)	ARCH 350 Architectural History I (4)
ARCH-622 Architectural History II (3)	ARCH 355 Architectural History II (4)
ARCH-631 Architectural Design I (6)	ARCH 230 Architectural Design I (4) ARCH 280 Architectural Design II (4)
ARCH-632 Architectural Design II (6)	ARCH 330 Architectural Design III (4) ARCH 480 Senior Design Project (4)
ARCH-641 Fundamentals of Building Systems (3)	ARCH 270 Commercial Construction (4) ARCH 370 Architectural Systems (4)
* = Elective courses in the BS in Architecture at KSC	

The prerequisite requirements are more than satisfied with required courses from the KSC BS program as shown in the following table.

RIT Prerequisite Course Requirements	KSC Required Courses
College level Math (one required)	MATH 120 Applied Algebra and Trigonometry (or any higher level MATH)

The combination of the above results in the student being able to achieve advanced standing and enter the RIT Architecture Program at the beginning of the second year. A minimum of 63 credit hours are required to meet professional degree requirements and university standards.

A recommended curriculum mask immediately follows. Course descriptions as well as course-by-course comparisons of learning outcomes illustrating equivalencies may be found on succeeding pages.

Year	Fall Semester	Cr.	Spring Semester	Cr.	Summer
1	ARCH-731 Arch Studio I: Site	6	ARCH-734 Arch Studio II: Urban	6	ARCH-698 Global ARCH-699 Co-op
	ARCH-741 Integrated Bldg Sys I	3	ARCH-742 Integrated Bldg Sys II	3	
	ARCH-662 Sustainable Built Environment	3	GRCS-701 Research Methods (or ARCH equivalent)	3	
	ARCH Elective (ARCH-751 Architectural Theory Recommended)	3	ARCH-763 Sustainable Bldg Metrics	3	
	Semester Credits	15	Semester Credits	15	
2	ARCH-733 Arch Studio III: Adaptive	6	ARCH-735 Arch Studio IV: Integrative	6	
	ARCH-743 Integrated Bldg Sys III	3	ARCH-744 Integrated Bldg Sys IV	3	
	ARCH-753 Thesis Preparation	3	ARCH-790 Thesis	3	
	ARCH-771 Professional Practice	3	ARCH Elective	3	
	Open Graduate Elective	3			
	Semester Credits	18	Semester Credits	15	
			This mask is a guide. Students may take courses as suits their needs as long as pre-requisites are met. Only one co-op and one global experience are required and may be taken any term. Additional courses may be required if the minimum grade requirement of the equivalent Keene course is not met.		
	Total Degree Requirement Credits	**63**			

Individual Course Comparisons

Rochester Institute of Technology	Keene State College
ARCH-611 Architectural Representation I Introduction to the range of architectural representation skills necessary to effectively document basic architectural form and space. Skill development will be primarily manual. Class 2, Studio 4, Credit 6 (F)	**ARCH 180 Introduction to Architectural Design** Introduction to the principles of architectural design through lectures and short design exercises. Emphasis is placed on developing visual communication skills necessary and related to architectural presentation including drawing, drafting, and model making techniques. A final design project provides the framework for investigating and understanding the fundamental elements, design principles, and processes necessary to explore the creation of architectural spaces. Fall, Spring. **IAART 103 Three-Dimensional Design** A comprehensive exploration of the properties of natural and human-made volumes and spaces. Projects involve sculptural objects, and architectural and environmental design. Studio projects are completed outside of class. Fall, Spring.
Course Learning Outcomes	
1. Select and utilize the appropriate convention, type and graphical method(s) to represent simple architectural designs.	1. (180) be able to communicate design ideas through freehand sketching; model making; hardline drawing and architectural drafting, 2. (180) understand basic architectural design principles, 3. (180) understand site plans and the issues involved in locating a small building on a site, 1. (103) Identify the formal elements and design principles used in three-dimensional design. 2. (103) Visually communicate themes or ideas using different art techniques.
2. Measure, draw, scale, and dimension plans, sections, and elevations to within an architectural or engineering scale's smallest increment.	1. (180) be able to communicate design ideas through freehand sketching; model making; hardline drawing and architectural drafting, 2. (180) understand basic architectural design principles,
3. Select and draw appropriate lines in five thicknesses to industry standards to support architectural/ engineering/ construction drawings.	1. (180) be able to communicate design ideas through freehand sketching; model making; hardline drawing and architectural drafting, 2. (180) understand basic architectural design principles,
4. Letter drawings consistently, legibly, and to industry accepted standards to support basic architectural/ engineering/ construction drawings.	1. (180) be able to communicate design ideas through freehand sketching; model making; hardline drawing and architectural drafting, 2. (180) understand basic architectural design principles,
5. Lay out and execute architectural/ engineering/ construction drawings to industry accepted standards.	1. (180) be able to communicate design ideas through freehand sketching; model making; hardline drawing and architectural drafting, 2. (180) understand basic architectural design principles,

Rochester Institute of Technology	Keene State College
ARCH-612 Architectural Representation II Further study of architectural representation skills necessary to effectively document more complex architectural form and space. Skill development will be primarily digital. (Pre-requisite ARCH-611 Architectural Representation I) Class 2, Studio 4, Credit 3 (S)	**ARCH 180 Introduction to Architectural Design** Introduction to the principles of architectural design through lectures and short design exercises. Emphasis is placed on developing visual communication skills necessary and related to architectural presentation including drawing, drafting, and model making techniques. A final design project provides the framework for investigating and understanding the fundamental elements, design principles, and processes necessary to explore the creation of architectural spaces. Fall, Spring. **ARCH 220 Architectural Representation** Development of digital technology skills using 3d modeling software/applications for architectural design, representation, fundamentals of tectonic assemblies, construction details and documents. Building Information Modeling (BIM) software is applied as a tool for design investigations and the generation of digital representations of physical, functional, and performance characteristics of buildings. Fall, Spring.
Course Learning Outcomes	
1. Create an architectural 3-D virtual model of a moderate sized building project using industry standard file creation techniques.	1. (220) Use Building Information Modeling software to create 3 dimensional models of a simple building.
2. Create photorealistic renderings from an architectural 3-D virtual model of a moderate sized building project.	3. (220) Ability to work in a 3-dimensional CAD / BIM environment and create 3D models of construction assemblies and buildings.
3. Create select working drawings from an architectural 3-D virtual model of a moderate sized building project.	3. (220) Ability to work in a 3-dimensional CAD / BIM environment and create 3D models of construction assemblies and buildings.
4. Publish a set of presentation drawings and a partial set of working drawings from an architectural 3-D virtual model.	2. (220) Use Building Information Modeling to create 2-dimensional construction and presentation documents.
5. Create free-hand design and analytical drawings to industry accepted standards.	1. (180) be able to communicate design ideas through freehand sketching; model making; hardline drawing and architectural drafting,

Rochester Institute of Technology	**Keene State College**
ARCH-621 Architectural History I Students study global architecture from pre-history to the 15th century, including form, technology, urban context, and how architecture reflects social, cultural, and political concerns. Class 3, Credit 3 (F)	**ARCH 350 Architectural History I** An introduction to the history of architecture and the design concepts that are the building blocks of architectural history from prehistory to the Gothic period. The course surveys the traditional or "canonical" architectural works of Western Europe, the United States, Asia, and the Middle East. Fall.
Course Learning Outcomes	
From pre-history to the Medieval period:	
1. Identify by name, date, architect, and location – important examples of architecture for a given style.	1. Identify canonical works of Western architecture from pre-historic forms through the 13th century.
2. Identify and explain how various external influences helped create formal characteristics for a given style.	3. Discuss major architects and architectural styles. 4. Compare the morphology of the architecture of the various civilizations in terms of materials, structural systems, construction technology, primary elements, ordering principles and properties of form.
5. Compare and contrast important examples of architecture within and between styles.	4. Compare the morphology of the architecture of the various civilizations in terms of materials, structural systems, construction technology, primary elements, ordering principles and properties of form.
5. Evaluate important examples of architecture, and architectural styles with respect to their ability to satisfy the economic, social, and environmental needs of their time.	2. Evaluate and interpret works of architecture in their various contexts, as a product of time and place -- political, social, economic, religious, artistic, technological, and environmental factors.

Rochester Institute of Technology	**Keene State College**
ARCH-622 Architectural History II Students study global architecture from the 15th to the 21st century, including form, technology, urban context, and how architecture reflects social, cultural, and political concerns. Class 3, Credit 3 (S)	**ARCH 355 Architectural History II** Survey of architectural history, including built form, design theories, construction technologies, and social, political, religious influences from the Gothic period through 1960s. Examines the architecture of Western and non-Western civilizations. Lectures, exams, written reports and oral presentations serve as methods for learning about evolution of design in architectural history. Prerequisite: ARCH 350. Spring.
Course Learning Outcomes	
From the Renaissance to the present day:	
1. Identify by name, date, architect, and location – important examples of architecture for a given style.	1. Identify canonical works of western architecture from the Renaissance through the late 20th century.
2. Identify and explain how various external influences helped create formal characteristics for a given style.	2. Evaluate and interpret works of architecture in their various contexts, as a product of time and place -- political, social, economic, religious, artistic, technological, and environmental.
3. Compare and contrast important examples of architecture within and between styles.	3. Discuss major architects and architectural styles of the last five centuries.
4. Evaluate important examples of architecture, and architectural styles with respect to their ability to satisfy the economic, social, and environmental needs of their time.	4. Compare the morphology of the architecture of the various civilizations in terms of materials, structural systems, construction technology, primary elements, ordering principles and properties of form.

Rochester Institute of Technology	Keene State College
ARCH-631 Architectural Design I Exploration of basic architectural space and form through studio design problems. Problems require understanding of elements such as spatial relationships, circulation, light, and orientation. (Co-requisite, ARCH-611 Architectural Representation I).	**ARCH 230 Architectural Design I** Studio investigations of fundamental design concepts, principles, and elements. Projects and exercises focus on the creation of abstract architectural forms and spaces through an exploration of shape, hierarchy, organization, scale, proportion, materials, and light. Studio Design courses should be taken in sequence. Prerequisite: ARCH 180 or permission of instructor. Fall. **ARCH 280 Architectural Design II** Collaborative project-based studio design course emphasizing a team approach to solving real world architectural problems in the community for clients with social, environmental, and civic design needs. Students engage in service to their communities, embracing inclusiveness and understanding of diverse views, through bi-weekly meetings with the clients. Prerequisite: ARCH 230. Spring.
Course Learning Outcomes	
1. Describe the nature and role of the primary design elements in a successful design.	280.1 Apply organizing principles to create abstract three-dimensional forms and basic programmed spaces in terms of shape, size, and degree of enclosure, configuration, depth, and density of spaces. 280.3 Analyze and research the social, cultural and historical site context of their building project.
2. Describe the nature and impact each element of form has on an overall design.	280.2 Use learned principles, individual ideas and associations to transform a rough "parti" into an architectural form/object and a perceptible space.
3. Utilize primary design elements to create 2-dimensional and 3-dimensional design compositions.	230.1 Apply organizing principles to create abstract three-dimensional forms and basic programmed spaces in terms of shape, size, and degree of enclosure, configuration, depth, and density of spaces.
4. Utilize elements of form to create 3-dimensional design compositions that respond to given spatial requirements.	230.2 Use learned design principles and individual ideas and associations, to transform a rough "parti" into an architectural design located on a site.
5. Create a basic color rendering of elemental forms.	230.4 Utilize 2d and 3d hand-sketching and drafting, 3d digital modeling (Revit), and physical models to effectively communicate their ideas.
6. Create basic working drawings and outline specification for an element of architectural design.	230.4 Utilize 2d and 3d hand-sketching and drafting, 3d digital modeling (SketchUp), and physical models to effectively communicate their ideas.
7. Build an element of an architectural design from working drawings and specifications.	230.4 Utilize 2d and 3d hand-sketching and drafting, 3d digital modeling (Revit), and physical models to effectively communicate their ideas.

Rochester Institute of Technology	Keene State College
ARCH-632 Architectural Design II Students will analyze and solve basic architectural design problems with a focus on residential design and other wood based structures. (Pre-requisite, ARCH-631 Architectural Design I, Co-requisite, ARCH-621 Architectural Representation II). Classroom 3, Studio 9, Credit 6 (S)	**ARCH 330 Architectural Design III** Studio investigations of fundamental design concepts, principles, and processes. Projects focus on the creation of both abstract and programmed architectural forms and spaces with an emphasis on formal and aesthetic values and the development of a visual vocabulary. The exercises are oriented toward the achievement of creative individual expression. Prerequisite: ARCH 280. Fall only **ARCH 480 Senior Design Project** Culminating course in the architecture program where each senior defines and develops a complete design and set of drawings for a real client and site. The course emphasizes group interaction, peer review, and evaluation by independent architects. Prerequisite: ARCH 330. Spring.
Course Learning Outcomes	
1. Study and apply residential design philosophy to create single family to multi-family residential building projects.	PL01: Spatial, formal, and organizational principles of architectural design and considerations of aesthetic, social, cultural, historical, environmental, and technical factors 300 course approach. applying architectural design and consulting services to socially beneficial community projects, such as affordable housing and facilities for non-profit organizations.
2. Synthesize influences on residential form learned in pre and co-requisite courses into design projects.	330.6 To reinforce, enrich, and extend prior classroom learning through the application to real-world problems.
3. Create residential designs that respond to their natural and man-made environmental context.	330 Course approach. Students will apply their knowledge of architectural design, building science, sustainable design, and construction
4. Identify and utilize methods of sustainable architectural design.	330.5 To provide students with a working environment consisting of customary professional standards for quality work. PL03: The appropriate selection and application of building systems, construction assemblies, and materials, relative to aesthetics, fundamental performance, durability, energy and material resources, and environmental impact.
5. Given programmatic requirements, utilize basic design elements to design space and form that responds to client needs.	480.1 experience, discussed, and evaluated working with or for potential clients, and improved their abilities in this area, 480.2 manage a potentially real project on their own, with support from the class and outside professionals and guest speakers, and have significantly improved their project management capabilities,

Rochester Institute of Technology	Keene State College
ARCH-641 Fundamentals of Building Systems Students will receive an overview of the various passive and active architectural and engineering systems that comprise a building project while focusing on wood frame construction. (Co-requisite ARCH- 632 Architectural Design II) Class 3, Credit 3 (S).	**ARCH 270 Commercial Construction** Introduction of the processes of commercial building, including environmental and regulatory factors and analysis of foundation components and structural and enclosure building systems. Lectures, site visits, and projects present students with an array of technical challenges in building design. Focus is on analyzing and designing architectural details for a variety of building materials. **ARCH 370 Architectural Systems** Designing mechanical and electrical systems in the context of high-performance buildings. Course applies scientific principles in designing water-supply systems, heating, cooling, electrical services, lighting, and sound control, extending the understanding of healthy buildings design. Emphasizes the principles and concepts to help students design a variety of systems while creating healthy buildings. Prerequisite: ARCH 260 or permission of instructor. Fall.
Course Learning Outcomes	
1. There are 24 individual learning outcomes that generally require students to recognize, classify, compare, and select building materials in architectural, civil, structural, and building service systems.	370. 1 understand the scientific principles which provide the foundation of environmental systems in high-performance buildings. 370.5 understand the principles of whole building design and the integral relationships among shape, mass, orientation, envelopes, and mechanical systems.
2. To learn and use industry classification systems.	270.1 To read, interpret, and develop construction details for a variety of building systems, including the foundation, structure, enclosure (cladding and roofing). 270.2 Have analyzed and created several architectural details in steel, concrete, and masonry. 270.3 Utilize conventional and/or state of the art digital technology to graphically represent architectural details.
3. To apply sustainability principles to the systems noted above.	370.2 understand the types of systems commonly used in energy efficient buildings for achieving excellence in Sustainable Design. 370.6 be able to evaluate plans and designs of systems for existing commercial buildings and to understand the new developments that relate to high-performance building design and Zero Net Energy buildings.