Virtual Reality

The AAS degree in Virtual Reality is a pioneering program for artists and creative technologists. Students will learn to create immersive content and experiences for a wide range of industries in an exploding market projected to grow to a $40 billion industry by 2020.

Those enrolled in the Virtual Reality program will study in a range of areas including photography, digital imaging, computer science and narrative storytelling in virtual, augmented and mixed reality. This program emphasizes concept-based approaches to this new and exciting form to create engaging experiential projects. Learn the tools to shape technology creatively.

Degrees

General Education Foundation

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<td>ENG-111</td>
<td>English Composition I</td>
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<td>MATH-SCIENCE-TECHNOLOGY**</td>
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Choose from General Education course list (Math/Science)

| Mathematics Elective (3/4 CR) |
| Technology (0-1 CR)* |
| SOCIAL SCIENCE OR HUMANITIES | 3 |

Choose from General Education course list

| GENERAL EDUCATION COURSES (9 CR) | 9 |
| PHO-113 | History of Photography |
| General Education Elective** |
| General Education Elective** |

General Education Foundation Credits 25-27

Photography & Imaging Core (39 CR)

| PHO-115 | Photography I | 3 |
| CMP-128 | Computer Science I | 3 |
| CMP-129 | Computer Science II | 3 |
| CMP-150 | Game Programming | 3 |
| PHO-204 | Digital Imaging I | 3 |
| IMG-112 | X-R Principles | 3 |
| PHO-117 | Color Photography I | 3 |
| PHO-216 | Studio Lighting I | 3 |
| PHO-224 | Digital Imaging II | 3 |
| IMG-214 | X-R Studio | 3 |
| IMG-201 | Narrative and Storytelling in X-R |
| PHO-226 | Portfolio Preparation | 3 |
| PHO-227 | Professional Studio Photography | 3 |

Photography & Imaging Core (39 CR) Credits 30

Total Credits 55-57

Faculty

Nieves Gruneiro-Roadcap
Chairperson, Art and Design
Associate Professor, Art and Design

M.F.A., Mason Gross School of the Arts, Rutgers University
B.F.A., New Jersey City University
EH 101 973-328-5435 ngruneiro@ccm.edu

Hrvoje Slovenc
Special Projects, Photography Technology
Assistant Professor, Art and Design
M.F.A., Yale School of Art
B.A., The City College of the CUNY
EH 110 973-328-5440 hsolvenc@ccm.edu

Courses

PHO-110. Photography Appreciation. 3 Credits.
LECT 3 hrs
Through lectures, discussions, written analysis, projects and presentations, the student will gain an understanding and appreciation of the global and cultural impact of photography. Students focus on the formal development of photography and the role it plays in social and cultural production, gaining insight into how photographs produce visual representations across cultures and reflect social values. Students learn the fundamental visual elements of photographic form, critical skills necessary to interpret a variety of visual representations and to enhance visual literacy. Note: This is a lecture based course, not a studio art course and is not acceptable for majors of Photography, Graphic Design, or Fine Arts.

PHO-113. History of Photography. 3 Credits.
LECT 3 hrs
A survey of photographic history from its origin to the present day. Topics include the invention of photography, the photograph as document, the photograph as art, the natural landscape, the portrait, color photography and contemporary photography. Course requirements may include extensive use of Blackboard and other online components.

PHO-114. Photographic Processes. 3 Credits.
LECT 2 hrs, LAB 2 hrs
A studio course covering historical, traditional and digital photographic processes. The range of topics for this course will include basic scientific principles regarding optics, the physics of light, camera design and reproduction problems. Lectures will identify and explain topics related to course content. Studio exercises will develop and reinforce the theoretical knowledge through practice in the shooting studio or darkroom. Students will work on a number of projects individually and in groups, during class time and open lab hours. This lab/studio environment will help students understand the course material through practice, exploration, and problem solving situations. The course will prepare students to apply scientific knowledge in an effective way by completing a summary project. Course requirements may include extensive use of Blackboard and other online components, including but not limited to, photo sharing sites.

Prerequisites: PHO-115 MAT-007 or MAT-006.
PHO-115. Photography I. 3 Credits.
LECT 2 hrs, LAB 3 hrs
A beginning photography studio course emphasizing the fundamentals of photographic language, digital camera systems and creative visual problem solving. Students will become familiar with the concept of the digital darkroom using image editing photographic production tools. Course requirements may include extensive use of Blackboard and other online platforms. The current software programs used in this course are Adobe Lightroom and Photoshop, subject to change based on technology advancement and availability. Note: Each semester there will be a section of PHO-115 designated for Photography Technology majors which will require that the student own or have unrestricted access to both film and digital 35mm cameras. No point and shoot cameras are allowed in this course section.
Additional Fees: Course fee applies.

PHO-116. Photography II. 3 Credits.
LECT 2 hrs, LAB 3 hrs
An intermediate black and white photography course introducing the student to medium and large format camera systems in both commercial and fine art applications. Darkroom and digital technologies are covered in this course.
Prerequisites: PHO-115
Additional Fees: Course fee applies.

PHO-117. Color Photography I. 3 Credits.
LECT 2 hrs, LAB 3 hrs
An introduction to color photographic materials. Topics include color perception, composition/design and color technology. Color theory, conventional image processing and digital image processing are covered. Course requirements may include extensive use of Blackboard and other online components including, but not limited to, photo sharing sites.
Prerequisites: PHO-204
Additional Fees: Course fee applies.

PHO-119. Contemporary Photography. 3 Credits.
LECT 3 hrs
An in-depth look at photography and photographers practicing since 1950. Students gain an understanding of the philosophies that have shaped the current uses of the photographic image. Course requirements may include extensive use of Blackboard and other online components including, but not limited to, photo sharing sites.

PHO-204. Digital Imaging I. 3 Credits.
LECT 2 hrs, LAB 3 hrs
An introductory studio course providing an overview of various digital post production software applications used for digital photography. Non-destructive vs. destructive image manipulation, color management, workflow and image compositing basics are several of the topics covered in this course. Current software applications employed in the course include Adobe Photoshop and Adobe Lightroom. Course requirements may include extensive use of Blackboard and other online components including, but not limited to, photo sharing sites.
Prerequisites: PHO-115
Additional Fees: Course fee applies.

PHO-213. Documentary Photography. 3 Credits.
LECT 2 hrs, LAB 3 hrs
An introduction to the methods, history, problems and opportunities of in-depth, fact-based photographic assignments and essays. Students learn how to plan, engage and complete in-depth documentary and journalistic photographic projects. Course requirements may include extensive use of Blackboard and other online components including, but not limited to, photo sharing sites.
Prerequisites: PHO-115
Additional Fees: Course fee applies.

PHO-216. Studio Lighting I. 3 Credits.
LECT 2 hrs, LAB 3 hrs
An introductory studio course covering the basic concepts and manipulation of artificial lighting for a range of subject matter, camera formats and applications. The course focuses on developing problem-solving skills that address technical and creative methods of crafting an image to achieve a desired goal. Course requirements may include extensive use of Blackboard and other online components including, but not limited to, photo sharing sites.
Prerequisites: PHO-115 and PHO-204
Additional Fees: Course fee applies.

PHO-224. Digital Imaging II. 3 Credits.
LECT 2 hrs, LAB 3 hrs
This studio course is designed for experienced digital imaging users. Focusing on a semester long project, students learn how different media influence the way we see and capture the world. As technology and the role of the photographer evolve, methods of manipulation and presentation are explored. Course requirements may include extensive use of Blackboard and other online components including, but not limited to, photo sharing sites.

PHO-226. Portfolio Preparation. 3 Credits.
LECT 3 hrs
Students prepare a final portfolio, in both print and digital formats, showcasing examples of photographic skills acquired during their course of study in the Photography Technology program. Students focus on presentation, craftsmanship and the development of a personal style. Various outlets and methods of presentation are explored. Formal and informal critiques help students define strengths and career goals. This course should be taken in the student’s final semester. Course requirements may include extensive use of Blackboard and other online components including, but not limited to, photo sharing sites.

PHO-227. Professional Studio Photography. 3 Credits.
LECT 2 hrs, LAB 3 hrs
An advanced studio course focusing on the development of concepts and ideas within a studio environment through a variety of assignments. Emphasis is placed on developing light design strategies for various applications ranging from portraiture to architecture. Technical competency and professionalism are key components of this course. Course requirements may include extensive use of Blackboard and other online components including, but not limited to, photo sharing sites.
Prerequisites: PHO-204 and PHO-216
Additional Fees: Course fee applies.
PHO-228. Cooperative Work Experience-Photography. 3
Credits.
COOP 3 hrs
Open to Photography Technology (3550) majors only. Students work in photography-related jobs, receiving training. Photography Technology faculty members individually supervise students.
Prerequisites: PHO-116
Corequisites: PHO-229.

PHO-229. Cooperative Work Experience- Photography Related Class. 1 Credit.
LECT 1 hr
Open to Photography Technology (Program 3550) majors only. Related class designed to supplement Cooperative Work Experience. Weekly meetings include discussion, written assignments and critical analysis of the work experience.
Prerequisites: PHO-116
Corequisites: PHO-228.

PHO-290. Independent Study I in Photography. 3 Credits.
LECT 2 hrs, LAB 3 hrs
A project designed with a faculty advisor. The student is responsible for developing a statement of goals and objectives and submitting a summary project.
Prerequisites: Permission of department chair
Additional Fees: Course fee applies.

PHO-291. Special Topics in Photography. 3 Credits.
LECT 2 hrs, LAB 3 hrs
Topics in photography which are not included in the regularly scheduled curriculum. May include studio work, technical topics and/or critique.
Prerequisites: PHO-115
Additional Fees: Course fee applies.

PHO-292. Special Topics in Photography. 3 Credits.
LECT 2 hrs, LAB 3 hrs
Studio work in selected topics or issues in photography.
Prerequisites: PHO-115
Additional Fees: Course fee applies.

PHO-293. Special Topics in Photography. 1 Credit.
LECT 3 hrs
Studio work in selected topics or issues in photography.
Prerequisites: PHO-115
Additional Fees: Course fee applies.