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CREATING VISUAL EFFECTS: HISTORY AND TECHNIQUES

Course Syllabus

Rutgers, The State University of New Jersey

Mason Gross School of the Arts

Rutgers Arts Online

Semester/Year: Spring, 2021

Sections: 90

TAs: N/A

Modality: Online

Instructor: Dave Sperling

Email: Use course email

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Course Description:

Special visual effects are increasingly found in films of all types, and understanding their full potential unlocks a world of creative options for filmmakers. Visual effects can not only add excitement and produce amazing new realities, but are often seamlessly integrated with traditional visuals to enhance completely real-looking scenes. This course examines the 100+ year history of the role of movie special effects in creating visual stories, paying particular attention to their role in visual problem-solving, while also providing a hands-on introduction to two of the primary visual effect software programs for contemporary films -- BlackMagicDesign *Resolve/Fusion* and Adobe *After Effects*.

Course Goal:

The goal of this course is to provide an introduction to visual effects creation from a filmmaker's perspective, providing a comprehensive guide to conceiving, designing, planning, shooting and rendering from pre-production through post-production. Students will learn the language and history of movie effects technologies, and use industry standard software in creating coherent visual realities in movie storytelling.

Course Objectives:

In this course, students will develop an understanding of visual effects in filmmaking and learn how to proficiently use industry standard software to create visual effects composites. Students will trace the historical development of visual effects techniques from early 1900's to the present day through select readings and viewing of film clips. They will develop an understanding of filmmaking and visual effects terminology and use it to analyze, describe and differentiate the technical concepts required for a wide range of special effects and workflow scenarios. Students will learn to evaluate various special effects crafts to determine why specific methodologies or combinations may be appropriate for a particular task, and how these choices can impact the overall production budget and completion schedule. Students will also develop proficiency in industry-standard BlackMagicDesign *Resolve/Fusion* and Adobe *After Effects* software programs, and learn how these can be used to both create designed effects compositions and to remedy problems that may appear in production footage.

Learning Outcomes

After participating in this course, students will be able to:

1. Discuss the historical development of visual effect techniques in filmmaking from its origins to present day and how these techniques are linked to technologies available during the historical period when they were created.
2. Use appropriate terminology when analyzing, describing and differentiating the various technical components of visual effects.
3. Analyze technical concepts of special effects, how each is performed, and why specific one(s) may be appropriate for a particular scene, along with their impact on the production budget and completion schedule.
4. Proficiently use BlackMagicDesign *Resolve/Fusion* and Adobe *After Effects* software to manipulate video footage and create special effects composites.
5. Analyze and propose appropriate postproduction fixes for technical issues in production footage using BlackMagicDesign *Resolve/Fusion* or Adobe *After Effects* visual effects workflows.

Required Textbook and Course Materials:

1. *The Filmmaker's Guide to Visual Effects* by Eran Dinur (Focal Press)
2. **Resolve/Fusion from BlackMagicDesign – Free.** *Resolve/Fusion* offers a free version with most of the capabilities of their full studio version. The course will provide practical source footage and assignments that will interface properly with the free version, so there is no requirement to purchase the full studio version.
3. **Adobe AfterEffects – For Purchase (License).** Adobe does not offer a free student version, but students have different ways to purchase the required software:
 - - **Month-to-Month Rate - \$31.50/month.** For those students who wish to subscribe month to month, a cancellable license for the *AfterEffects CC* program is available at the rate of \$31.50 (plus tax) per month.
 - **Full Year Student Discount Rate - \$240./year.** Adobe offers a student discount for students licensing the entire *Adobe CC Suite* which includes the *AfterEffects* program at the rate of \$240 (plus tax) per year.

Students who wish to explore additional options beyond the yearly and month-to-month rates are encouraged to contact the instructor at the start of the semester. The instructor can make recommendations individually to students that need assistance.

A modern graphics-capable PC or MAC computer will be required to operate the software programs and to engage in the online course.

Hardware General Recommendations:

- PC's should preferably have an i7 or i9 processor, at least 16GB of system RAM plus a graphics card with at least 4 GB of Graphics RAM
- MAC's should run Mojave or newer OS, have an i7 or i9 processor and at least 16GB of system RAM. Ideally notebooks should be recent MacBookPro models. Most recent MacPro and iMacPro computers should be capable of running the software.
- A fast (Thunderbolt or USB3) external SSD drive is also highly recommended.
- Please refer to specific hardware recommendations from software manufacturers BlackMagicDesign and Adobe.

<https://helpx.adobe.com/after-effects/system-requirements.html> (Links to an external site.)

If you have concerns about your hardware, please download the free version of *Resolve* (which includes *Fusion*) and verify that it opens properly on your computer. <https://www.blackmagicdesign.com/products/davinciresolve/> (Links to an external site.)

Course Assignments

- **Homework Assignment Projects**

- Project # 1 -- Creating basic photographic image combination effects in the style of the early 20th century using glass or a mirror
- Project # 2 – Scale and Perspective: Creating multiple versions of a physical cut-out forced perspective photo-realistic collage
- Project # 3 – Changing mood and emotion by creating a color correction sequence in *DaVinci Resolve*
- Project # 4 -- Compositing and outputting with both *After Effects* and *Resolve/Fusion*
- Project # 5 -- Create and adjust green screen composites in both *After Effects* and *Resolve/Fusion*
- Project # 6 -- Compositing with variable keyframes (garbage) masks
- Project # 7 -- Isolating and modifying a specific color in a scene
- Project # 8 -- Adding text and matching movement & perspective to a moving background
- Project # 9 – Identifying and replacing problem areas of a shot
- Project # 10 – Cloning/ replacing areas in motion footage

- **Essay 1: Historical Perspectives**

- Select a basic visual effect sequence from a modern film (no more than 10 years old). In choosing your visual effects sequence, make sure that it is something that could have been orchestrated using technologies available in the past as well as ones currently available. Research and analyze all the elements that would have gone into creating the effects sequence as seen. Include a reference link to the effect sequence.
- Re-think the same effect to analyze how it would have been created during two periods in the past – during the 1970's (40-50 years ago) and during the 1920's (90-100 years ago.) Be sure that the techniques you are suggesting for each period were available at that time!
- Finally, describe how the finished effects would be different from each other, and how the resulting differences would affect the storytelling.

- **Essay 2: Analyzing the Creation of a Complex Effects Sequence**

- Select a complex visual effect sequence from a recent film (no more than 6 years old). Explain why effects were needed for the sequence and how the effects helped tell the story visually. Include specifics about what aspects of the VFX worked best, and any that fell short or got in the way of the story telling.
- Analyze in detail all the different elements that may have gone into creating the effect, what techniques may have been used, and what personnel, facilities, interactive lighting and software may have been needed.

- **Final Project: Creating and Compositing a Complex Visual Effect**

- This final project is used to demonstrate your problem-solving skills and capabilities in BlackMagicDesign *Resolve/Fusion* and/or *Adobe After Effects*!
 - Students may use their own or course-provided 4k, UHD or HD raw footage and compositing elements to create and composite a complex visual effect. (Complex means an effect that includes numerous elements and requires a combination of multiple technologies to accomplish.)
 - Project proposals should be submitted to the instructor in advance of undertaking the project.
 - In addition to creating and posting the final composition, students must write a complete analysis of their process, including details to provide insight into not just the problems being solved and techniques used, but also what did or did not work for them -- essentially creating a diary of the creative journey.
- **Quizzes:**
 - Quiz # 1: This quiz will cover content from units 1-4
 - Quiz # 2: This quiz will cover content from units 5-8
 - Quiz # 3: This quiz will cover content from units 9-12

Course Grading

Final Grade Calculation

Assignment Type	Points/Percentage
Class Forums (Discussion Boards) · One (1) question per each unit for Units #1 - #12	12 % (1% per unit)
Quizzes · Three (3) Quizzes	21 % (7% per quiz)
Essay 1: Historical Perspectives	11 %
Essay 2: Analyzing the Creation of a Complex Effects Sequence	12 %
Homework Assignments · Ten (10) practical homework exercises, primarily emphasizing specific features of <i>Resolve/ Fusion</i> and <i>After Effects</i>	30 % (3% per assignment)
Final Project: Creating and Compositing a Complex Visual Effect	14 %
TOTAL	100 %

Rutgers Grading Scale

Points	Grade	Description
90-100	A	Excellent, superior achievement
85-89	B+	
80-84	B	Good, exceeding all requirements
75-79	C+	
70-74	C	Average, satisfactorily meeting all requirements
60-69	D	Poor , unsatisfactory
59 or lower	F	Failing or withdrawal while doing failing work

This course follows all Rutgers grade regulations, policies, and standards as stated in the student handbook. Review the catalog for conditions under which an incomplete may be granted at the website hosted by the [registrar \(http://nbregistrar.rutgers.edu/facstaff/regis.htm\)](http://nbregistrar.rutgers.edu/facstaff/regis.htm) (Links to an external site.) and in the [university catalogs \(http://www.rutgers.edu/academics/catalogs\)](http://www.rutgers.edu/academics/catalogs) (Links to an external site.).

Course Schedule:

Start Date @ 6:00 AM	Unit / Topics	Assignments	Due Date @ 6:00 PM	Points / Percentage Value
1/19	<p>Unit #1 - January 19 - 26, 2021</p> <p>What is an Effect?</p> <p>Introduction</p> <ul style="list-style-type: none"> • Magic of the Movies • What I Hope You Learn From This Course <p>Why Do We Use Visual Effects?</p> <ul style="list-style-type: none"> • What Are Visual Effects? • Creating Realities – The importance on making it all seem REAL! • Some Practical Reasons for Utilizing Effects • Creating Worlds That Follow Rules • Science Fiction and Fantasy: Logic Behind Creating Environments • Vampire Rules <p>Visual Effects Categories</p> <ul style="list-style-type: none"> • Types of Visual Effects • Effects Personnel <p>The Physical Realities Behind Effects</p> <ul style="list-style-type: none"> • The Worlds We Know 	<p>1. Readings:</p> <p><i>The Filmmaker's Guide to Visual Effects:</i></p> <ul style="list-style-type: none"> • Chapter 1 -- Core Concepts • Chapter 2 -- VFX as a Filmmaking Tool <p>2. Discussion Forum:</p> <ul style="list-style-type: none"> • Analyzing the reasons for use of an effect in a recent film. 	1/26	Forum: 6 Pts (1%)

	<ul style="list-style-type: none"> • Working Without Gravity • Other Aspects of Gravity • Technical Challenges of Plausibility • Reality is Out There - Look For It! <p>Visual Effects Deconstructions and Artistic Expression</p> <ul style="list-style-type: none"> • Introducing Deconstruction Videos • Effects as a Form of Artistic Expression • Learning From Deconstructions 			
1/26	<p>Unit #2 – January 27 - February 2, 2021</p> <p>Early Visual Effects</p> <ul style="list-style-type: none"> • Early audiences and their expectations • A Modern Look at Early Cinema • Early Movie Magic from Georges Méliès • Visual Trickery in the Soviet Union • Terror on the Tracks! • Glass and Mirrors • Glass Plate Matte Paintings • Combining Reflections with a Black Room: Seeing Through a Ghost • Partial Mirrors - The Schufftan Process 	<p>1. Textbook Readings:</p> <ul style="list-style-type: none"> • (No assigned readings for this unit!) <p>2. Discussion Forum Participation:</p> <ul style="list-style-type: none"> • Modern uses of early visual effects techniques <p>3. Homework Assignment: Project #1 --</p> <ul style="list-style-type: none"> • Create a basic photographic image combination effect in the style of the early 20th century using glass or a mirror. 	2/2	<p>Forum: 6 Pts (1%)</p> <p>Assignment: 18 Pts (3%)</p>

	<ul style="list-style-type: none"> • An Early Traveling Matte: The Williams Process • Rear Projection • Stop Motion Animation <ul style="list-style-type: none"> ◦ Ray Harryhausen <p>The Era of the Immobilized Camera</p> <ul style="list-style-type: none"> • The Basic "Freeze - and - Switch" Technique • Locked Off Cameras - Not Just For In-Camera Effects • Camera Movement Issues in Green Screen • Front Projection <p>Clips From Films:</p> <ul style="list-style-type: none"> • <i>Trip to the Moon</i> • <i>Man With a Movie Camera</i> • <i>Hugo</i> • <i>Modern Times</i> • <i>Arrival of Train at a Station</i> • <i>Sunrise</i> • <i>Cinderella (1899)</i> • <i>2001: A Space Odyssey</i> • <i>Oblivion</i> 			
<p>2/3</p>	<p>Unit #3 – February 3 - 9, 2021</p> <p>Building Blocks – Breaking Down the Problem</p> <p>Effects Design and Planning</p> <ul style="list-style-type: none"> • It All Starts With Proper Pre-production 	<p>1. Textbook Readings:</p> <p><i>The Filmmaker's Guide to Visual Effects:</i></p> <ul style="list-style-type: none"> • Chapter 3 -- From 2D to 3D: The Quest for the Lost Dimension (Pgs 37 - 41) • Chapter 7 -- Pre-production 	<p>2/9</p>	<p>Forum: 6 Pts (1%)</p> <p>Assignment: 18 Pts (3%)</p>

	<ul style="list-style-type: none"> • How Previsualizations Can Work • Looking Back At How Movies Are Previsualized • Advantages Of 3-D Accurate Storyboards • Getting Everyone On The Same Page <p>Thinking In Two Dimensions</p> <ul style="list-style-type: none"> • Through Our Eyes • The Viewing Screen Has No Depth • Depth of Field - Creating Implied Depth Photographically <ul style="list-style-type: none"> ◦ Bokeh • Two Dimensional Advantages <p>Creating Realities of Scale</p> <ul style="list-style-type: none"> • Hanging Out In Space • What Is It Really Like In Space? • Using the Laws of Physics to Create the Impression of Reality • Creating New Laws On-the-Fly • Scaling Things Down To Size • Gravity and the Speed of Falling Objects in Miniatures • Why the Increased Frame Rates? • Working With Water 	<p>2. Forum Participation:</p> <ul style="list-style-type: none"> • Hypothesizing the planning process of an early film <p>3. Homework Assignment: Project #2 --</p> <ul style="list-style-type: none"> • Scale and Perspective: Creating a physical cut-out forced perspective photo-realistic collage 		
2/10	<p>Unit #4 – February 10 - 16, 2021</p> <p>Film and Generations</p>	<p>1. Textbook Readings:</p>	2/16	<p>Forum: 6 Pts (1%)</p>

<ul style="list-style-type: none"> • The Idea of Generations • Film Stock • The Photochemical Process: Emulsion, Base and Crystals • Film Negative • Reversal Films • Making Prints • Contact Printing • Timing, Color Correction and the Answer Print • Printing Elements and Distribution • Adding Generations • Blue Screen Matting on Film • The Optical Printer • Fighting Back with Bigger Formats • The Generations Add Up! <p>Transitioning to Digital</p> <ul style="list-style-type: none"> • Growing Up with Film • The Film Look • Achieving 24 Frames Per Second • The Revolution Arrives in Phases • The Editing and Sound Editing Rooms • The Digital Intermediate • 24p Comes to Cameras • Projection and Distribution • Can Film Survive? <p>Introducing Resolve/Fusion</p>	<p><i>The Filmmaker's Guide to Visual Effects:</i></p> <ul style="list-style-type: none"> • Chapter 4 -- Separation: (Pgs 49-62) <p>2. Forum Participation:</p> <ul style="list-style-type: none"> • Analyze a problem effect <p>3. Homework Assignment: Project #3 --</p> <ul style="list-style-type: none"> • Create alternate moods for a video clip using Davinci Resolve <p>4. To Do: Set up your Vimeo or YouTube channel</p> <p>5. Due: Quiz 1</p>	<p>Assignment: 18 Pts (3%)</p>
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	<ul style="list-style-type: none"> • The First Time You Open Resolve • Starting a New Resolve/Fusion Project • The Media Screen • The Edit Screen • The Color Screen • Making Color Adjustments • Backing Up Your DaVinci Resolve/Fusion Databases 			
2/16 - 2/17	Quiz #1 -- February 16 & 17, 2021		2/17	42 Pts (7%)
2/17	<p>Unit #5 – February 17 - 23, 2021</p> <p>Building Sets For Effects</p> <ul style="list-style-type: none"> • The Element of Design • Larger and Smaller • Rotating Rooms • Tilting the Set - Realistically • Angled Sets for Scaling Walls • Forced Perspectives <p>Introducing <i>AfterEffects</i></p> <ul style="list-style-type: none"> • Background Info <p>Layers and Nodes (AE vs. Fusion)</p> <ul style="list-style-type: none"> • Compositing a Basic Green Screen with Layers vs. Nodes • Green Screen Basics • Some Things To Look For In Green (or Blue) Screen Footage 	<p>1. Textbook Readings:</p> <p><i>The Filmmaker's Guide to Visual Effects:</i></p> <ul style="list-style-type: none"> • Chapter 8 -- On Set: VFX Elements & Green Screens (Pgs 128 - 145) <p>2. Forum Participation:</p> <ul style="list-style-type: none"> • Your impression of the Layers vs. Nodes workflows <p>3. Homework Assignment: Project #4 --</p> <ul style="list-style-type: none"> • Output and post from both your work files from last 	2/23	<p>Forum: 6 Pts (1%)</p> <p>Assignment: 18 Pts (3%)</p>

	<ul style="list-style-type: none"> • Green Screen in <i>AfterEffects</i> • Green Screen in <i>Resolve/Fusion</i> • Recap - Additional Thoughts About Layers vs. Nodes • Terms To Remember <p>Outputting a Movie File</p> <ul style="list-style-type: none"> • Outputting in <i>Resolve/Fusion</i> • A Higher Quality Render • Outputting in <i>After Effects</i> 	<p>unit's green screen exercise.</p> <p>4. Historical Perspectives Essay</p> <ul style="list-style-type: none"> • Due at end of Unit #5 		
	Historical Perspectives Essay - February 24, 2021		2/24	66 Pts (11%)
2/25	<p>Unit #6 – February 25 - March 4, 2021</p> <p>Matching Perspectives and Adding Elements</p> <ul style="list-style-type: none"> • Perspective • The Nodal Mount • Matching Perspectives • Matching Lenses • Write It Down! • How About Just 'Making It Work'? • Forced Perspective • Extreme Forced Perspective: The Ames Room • Shrinking <i>The Hobbit's</i> Actors <p>A Window View - Different Perspectives</p>	<p>1. Textbook Readings:</p> <p><i>The Filmmaker's Guide to Visual Effects:</i></p> <ul style="list-style-type: none"> • Chapter 8 -- Crane Dare thru Photogrammetry (Pgs 145-153) • Chapter 8 -- Screen Inserts thru Special and Visual Effects (Pgs 159-162) <p>Forum Participation:</p> <p>Consider the ethical aspects of making changes to ostensibly real visuals.</p> <p>3. Homework Assignment: Project #5 --</p>	3/4	<p>Forum: 6 Pts (1%)</p> <p>Assignment: 18 Pts (3%)</p>

	<ul style="list-style-type: none"> • A Window Paradox • Moving the Planes <p>Basic Masking and Adjustments</p> <ul style="list-style-type: none"> • Creating Separation • The Garbage Matte • Inverting and Thinking Inside Out • Adding an adjustment Layer 	<ul style="list-style-type: none"> • Create a basic green screen composite using both <i>Resolve/Fusion</i> and <i>AfterEffects</i> and compare the results. 		
3/5	<p>Unit #7 – March 5 - 12, 2021</p> <p>Advantages of Going Digital</p> <ul style="list-style-type: none"> • The Meaning of Analog and Digital • Video Before Digital • Elements that Slowed the Transition • Minimal Generation Loss • One Camera, Many Looks • Reduced Grain • No Scanning Necessary • Longer Takes • Reduced Timeframes • Save on Shipping <p>Turning Pictures into Numbers</p> <ul style="list-style-type: none"> • Analog Meets Digital • Degrees of Precision • How to Convert Images 	<p>1. Textbook Readings:</p> <p><i>The Filmmaker's Guide to Visual Effects:</i></p> <p>Chapter 9 -- Post-Production (Pgs 163 - 170)</p> <p><i>Re-visit</i> Chapter 8 -- On Set: VFX Elements & Green Screens (Pgs 128 - 145)</p> <p>2. Discussion Forum Participation:</p> <ul style="list-style-type: none"> • Comment on the creative effects in <i>Sin City</i> (Miller/Rodriguez, 2005) <p>3. Homework Assignment: Project #6 --</p> <ul style="list-style-type: none"> • Compositing with variable keyframed masks 	3/12	<p>Forum: 6 Pts (1%)</p> <p>Assignment: 18 Pts (3%)</p>

	<ul style="list-style-type: none"> Working With Big Numbers <p>Thinking Outside The Box</p> <ul style="list-style-type: none"> Strange Green Screen Composites Green on Green Ping Pong Balls More Zemeckis Through the Screen More Ping Pong, Much More Complexity <p>Secondaries and Rotoscoping</p> <ul style="list-style-type: none"> Little Fixes Tracing As Required 			
3/13	Spring Break: March 13 - 21, 2021		3/21	
3/22	<p>Unit #8 – March 22 - 29, 2021</p> <p>Motion Control</p> <ul style="list-style-type: none"> Motion What? Why Do We Need Repeatability? Back in Time with Motion Control Playing Additional Roles Repeating Manual Camera Operation More than Seeing Double 	<p>1. Textbook Readings:</p> <p><i>The Filmmaker's Guide to Visual Effects:</i></p> <p>Chapter 3 -- 3D, 2.5D and Hybrid Solutions (Pgs 41 - 48)</p> <p>2. Discussion Forum Participation:</p> <ul style="list-style-type: none"> Does Motion Control have a future? 	3/29	<p>Forum: 6 Pts (1%)</p> <p>Assignment: 18 Pts (3%)</p>

	<p>Adding the small elements to sell an effect.</p> <ul style="list-style-type: none"> • Matching The Overall Look Of The Film • Lighting and Contrast • Shadows Reflections and Mirrors <p>Moving Masks in Resolve/Fusion</p> <ul style="list-style-type: none"> • Computers, Cards and Caches • Combining Clips • Creating a Polygon Mask • Matching Movement in a Shot 	<p>3. Homework Assignment: Project #7 --</p> <ul style="list-style-type: none"> • Isolating and adjusting a specific color <p>4. Quiz #2 at end of Unit #8</p>		
	<p>Quiz #2 -- March 29 & 30, 2021</p>			<p>42 Pts (7%)</p>
<p>3/30</p>	<p>Unit #9 – March 30 - April 5, 2021</p> <p>Building Virtual Worlds</p> <ul style="list-style-type: none"> • Different Kinds of Worlds • Gaming • Tron • Creating Virtual Worlds with Animation • Drawing or Otherwise Creating a Strange World • Mixing Sets and CGI • Software to Build Your Worlds <p>Planar Tracking in Resolve/Fusion</p> <ul style="list-style-type: none"> • Mice, Keyboards and Commands 	<p>1. Textbook Readings:</p> <p><i>The Filmmaker's Guide to Visual Effects:</i></p> <p>Chapter 5 -- Visual Effects Crafts (Pgs 63 - 84)</p> <p>Chapter 6 -- Case Studies (Pgs 104 - 112)</p> <p>2. Discussion Forum Participation:</p> <ul style="list-style-type: none"> • When would you want a Virtual World? <p>3. Homework Assignment: Project #8 --</p>	<p>4/5</p>	<p>Forum: 6 Pts (1%)</p> <p>Assignment: 18 Pts (3%)</p>

	<ul style="list-style-type: none"> • What is Planar Tracking? • Automating Motion Point Capture in Software <p>Picking a Final Project</p>	<ul style="list-style-type: none"> • Adding Text with Matching Movement & Perspective to a Moving Background 		
4/6	<p>Unit #10 – April 6 - 12, 2021</p> <p>Adjustments vs. Fixes</p> <ul style="list-style-type: none"> • Flares and Highlights • Vfx to the Rescue • Making the Set Safer • Something About the Way You Look • "We'll Fix It In Post" • The Script Supervisor -- MVC? <p>Post-Production Workflow</p> <ul style="list-style-type: none"> • Film Financing and Finishing Costs • Supervising Post-Production • Finishing on Film <p>Automating the Rotoscoping Process</p> <ul style="list-style-type: none"> • RotoBrush 2 	<p>1. Textbook Readings:</p> <p><i>The Filmmaker's Guide to Visual Effects:</i></p> <p>Chapter 9 -- Post Production (Pgs 170 - 181)</p> <p>2. Discussion Forum Participation:</p> <ul style="list-style-type: none"> • Possible reasons for on-set changes regarding firearms and Vfx. <p>3. Homework Assignment: Project #9 --</p> <ul style="list-style-type: none"> • Identifying and replacing problem areas of a shot. 	4/12	<p>Forum: 6 Pts (1%)</p> <p>Assignment: 18 Pts (3%)</p>
4/13	<p>Unit #11 – April 13 - 19, 2021</p> <p>The Financial Side of Vfx</p> <ul style="list-style-type: none"> • The Cost of Effects 	<p>1. Textbook Readings:</p> <p><i>The Filmmaker's Guide to Visual Effects:</i></p> <ul style="list-style-type: none"> • Chapter 5 -- Visual Effects Crafts (Pgs 64 - 103) 	4/19	<p>Forum: 6 Pts (1%)</p>

	<ul style="list-style-type: none"> • How Expensive Is Expensive? • Other Trends • Some Disturbing Closures • <i>Life After Pi</i> <p>Making the Most of Your Budget</p> <ul style="list-style-type: none"> • Back to Basics • It All Starts With Proper Pre-Production • How Many D's Do You Need? • Should You Ride the Bleeding Edge? • Doing Work "For the Reel" • When Less Time is More Money • Avoiding the Up-sell • Concentrating on Story and Reality • Low Budget All the Way <p>What's Behind the Picture?</p> <ul style="list-style-type: none"> • Placing Elements Between Layers • Concentrating on the Areas That Matter 	<p>2. Discussion Forum Participation:</p> <ul style="list-style-type: none"> • What is your time, inspiration and energy worth? <p>3. Due at end of Unit 11:</p> <ul style="list-style-type: none"> • Essay 2- Analyzing FX Creation <p><i>(Because of Essay, No Project this Unit)</i></p>		
	Fx Creation Analysis Essay - April 21, 2021		4/21	72 Pts (12%)
Nov 23	<p>Unit #12 – April 22 - 28, 2021</p> <p>Building Crowds</p> <ul style="list-style-type: none"> • The Need For Extras • Assistance from Matte Paintings and 2D Options 	<p>1. Textbook Readings:</p> <p><i>The Filmmaker's Guide to Visual Effects:</i></p> <ul style="list-style-type: none"> • Chapter 8 -- Crowd Tiling (Pgs 154-159) 	Dec 3	<p>Forum: 6 Pts (1%)</p> <p>Assignment: 18 Pts (3%)</p>

	<ul style="list-style-type: none"> • Blow-up Performers • Using Extras Multiple Times • A Simple Build • World War Z <p>Motion Capture</p> <ul style="list-style-type: none"> • Early Mo-Cap Techniques • Modern Motion Capture • Other Milestones • Markers • Facial Performance Capture • Cloning a Performer <p>A Little Bit of Cloning</p> <ul style="list-style-type: none"> • Higher Quality Exporting • Avoiding Color Banding • Exporting with an Alpha Channel • Multiple Mats <p>Due: Quiz 3</p>	<p>2. Forum Participation:</p> <ul style="list-style-type: none"> • Finding ways to improve an effect <p>3. Homework Assignment: Project #10 --</p> <ul style="list-style-type: none"> • Cloning/ replacing areas in motion footage 		
4/28 - 4/29	Quiz #3 -- April 28 & 29, 2021		4/29	42 Pts (7%)
4/29	<p>Unit #13 – April 29 - May 3, 2021</p> <p>Synthespians and Augmented Performers</p> <ul style="list-style-type: none"> • Searching for the Fountain of Youth • Everyone's a Critic • Gender Discrimination? <p>Going Where No Effect Has Gone Before</p>	<p>1. Textbook Readings:</p> <p><i>The Filmmaker's Guide to Visual Effects:</i></p> <ul style="list-style-type: none"> • Chapter 10 -- The Future <p>Final Project Due</p> <ul style="list-style-type: none"> • Creating a More Complex Effect 	5/3	

	<ul style="list-style-type: none"> • At What Cost Originality? • Did We Really Need That? • From Vision to Toolkit Necessity <p>One Step Beyond</p> <ul style="list-style-type: none"> • Game Makers and AI • The <i>Manadlorian</i> Volume • LIDAR and Depthcams 	<ul style="list-style-type: none"> • Please note that this project includes both practical and written components! 		
	Final Project Due -- May 3, 2021	Creating a More Complex Effect	5/3	84 Pts (14%)
	Last Day of Classes -- May 3, 2021		5/3	
5/4	Final Grading -- May 4 - 5, 2021		5/5	
5/6	Grades Submitted To Registrar -- May 6, 2021		5/6	

Assessment Measures:

Grading Rubrics:

Learning Outcome #1: Discuss the historical development of visual effect techniques in filmmaking from its origins to present day and how these techniques are linked to technologies available during the historical period when they were created.

Assessment Method(s): Students will be required to submit:

- Essay 1: Historical Perspectives
- Quizzes: 1,2
- Homework Assignments: 1,2,3,6
- Forum Responses: Units 2,3

Grade Range	Criteria
A	Essay and homework comments display an in-depth understanding of the historical aspects of visual effects, and use sophisticated examples to draw the connection between available technologies and special effects techniques of the period. Critically analyzes and presents compelling arguments for conclusions.
B+	Essay and homework comments display a very good understanding of the historical aspects of visual effects, and use intelligent examples to draw the connection between available technologies and special effects techniques of the period. Correctly analyzes and presents very good arguments for conclusions.
B	Essay and homework comments display a good understanding of the historical aspects of visual effects, and use very good examples to draw the connection between available technologies and special effects techniques of the period. Correctly analyzes and presents good arguments for conclusions.
C+	Essay and homework comments display a satisfactory understanding of the historical aspects of visual effects, and use good examples to draw the connection between available technologies and special effects techniques of the period. Analyzes and presents plausible arguments for conclusions.
C	Essay and homework comments display a fundamental understanding of the historical aspects of visual effects, and use satisfactory examples to draw the connection between available technologies and special effects techniques of the period. Analyzes and presents partial arguments for conclusions.

D	Essay and homework comments demonstrate partial understanding of the historical aspects of visual effects; some examples used are incorrect to draw the connection between available technologies and special effects techniques of the period. Analyzes poorly and presents limited or partially incorrect arguments for conclusions.
F	Is completely unable to demonstrate an understanding of the historical aspects of visual effects, and uses incorrect (or no) examples to draw the connection between available technologies and special effects techniques of the period. Analyzes poorly and presents incorrect arguments for conclusions.

Learning Outcome #2: Use appropriate terminology when analyzing, describing and differentiating the various technical components of visual effects.

Assessment Method(s): Students will be required to submit:

- Essay 2: Analyzing the Creation of a Complex Effects Sequence
- Quizzes: 1,2
- Forum Responses: Units 1,2,3,4,5,7,8,10,12

Homework Assignments: 1, 9

Grade Range	Criteria
A	Written content of essays and homework assignments display sophisticated understanding of the various types of visual effects and excellent mastery of technical terminology. Critically analyzes and presents compelling arguments for their conclusions.
B+	Written content of essays and homework assignments display a very good understanding of the various types of visual effects and good command of technical terminology. Correctly analyzes and presents very good arguments for their conclusions.
B	Written content of essays and homework assignments display a good understanding of the various types of visual effects and basic command of technical terminology. Correctly analyzes and presents good arguments for their conclusions.

C+	Written content of essays and homework assignments display a satisfactory understanding of the various types of visual effects and partial command of technical terminology. Analyzes and presents plausible arguments for their conclusions.
C	Written content of essays and homework assignments display a fundamental understanding of the various types of visual effects and partial command of technical terminology. Analyzes and presents partial arguments for their conclusions.
D	Written content of essays and homework assignments demonstrate partial understanding of the various types of visual effects and minimal command of technical terminology. Analyzes poorly and presents limited or partially incorrect arguments for their conclusions.
F	Written content of essays and homework assignments demonstrates a complete lack of understanding of the various types of visual effects, and incorrectly uses or completely lacks technical terminology. Analyzes poorly and presents incorrect arguments for their conclusions.

Learning Outcome #3: Analyze technical concepts of special effects, how each is performed, and why specific one(s) may be appropriate for a particular scene, along with their impact on the production budget and completion schedule.

Assessment Method(s): Students will be required to submit:

- Essay 2: Analyzing the Creation of a Complex Effects Sequence
- Final Project: Creating and Compositing a Complex Visual Effect
- Homework Exercises: 1,2,9
- Forum Responses: Units 1,2,3,4,5,7,8, 9,10,12
- Quiz #3

Grade Range	Criteria
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A	Written content of essays, homework assignments and final project analysis comments display sophisticated understanding of the specific techniques and workflows which may be called for within a visual storytelling scenario, and superior grasp of budget scaling required for a specific approach. Critically analyzes and presents compelling arguments for their conclusions.
B+	Written content of essays, homework assignments and final project analysis comments display a very good understanding of the specific techniques and workflows which may be called for within a visual storytelling scenario, and good appreciation of budget scaling required for a specific approach. Correctly analyzes and presents very good arguments for their conclusions.
B	Written content of essays, homework assignments and final project analysis comments display a good understanding of the specific techniques and workflows which may be called for within a visual storytelling scenario, and reasonable sense of budget scaling required for a specific approach. Correctly analyzes and presents good arguments for their conclusions.
C+	Written content of essays, homework assignments and final project analysis comments display a satisfactory understanding of the specific techniques and workflows which may be called for within a visual storytelling scenario, and basic comprehension of budget scaling required for a specific approach. Analyzes and presents plausible arguments for their conclusions.
C	Written content of essays, homework assignments and final project analysis comments display a fundamental understanding of the specific techniques and workflows which may be called for within a visual storytelling scenario, and a limited grasp of budget scaling required for a specific approach. Analyzes and presents partial arguments for their conclusions.
D	Written content of essays, homework assignments and final project analysis commentary fails to demonstrate an understanding of the specific techniques or workflows which may be called for within a visual storytelling scenario, and displays minimal concepts of budget scaling required for a specific approach. Analyzes poorly and presents limited or partially incorrect arguments for their conclusions.
F	Written content of essays, homework assignments and final project analysis commentary is completely unable to demonstrate an understanding of the specific techniques or workflows which may be called for within a visual storytelling scenario, and has no sense of budget scaling required for a

specific approach. Analyzes poorly and presents incorrect arguments for their conclusions.

Learning Outcome #4: Proficiently use BlackMagicDesign *Resolve/Fusion* and Adobe *After Effects* software to manipulate video footage and create special effects composites.

Assessment Method(s): Students will be required to submit:

- Final Project: Creating and Compositing a Complex Visual Effect
- Homework Assignments: 3-10
- Forum Response: Unit 5

Grade Range	Criteria
A	Shows a sophisticated understanding of, and demonstrates ability to utilize the advanced capabilities of <i>Resolve/Fusion</i> and <i>After Effects</i> . Creates finished composites that have no technical issues, and which enhance the storytelling experience for the viewer. Fully addresses and solves any problems inherent in the elements to be composited. Shows superior understanding of differences between uses of Nodes and Layers in selecting workflows. Critically analyzes and presents compelling arguments for their creative choices made in using the programs and creating the composites.
B+	Shows a very good understanding of, and demonstrates ability to utilize most of the advanced capabilities of <i>Resolve/Fusion</i> and <i>After Effects</i> . Creates finished composites that have only slight technical issues, and which enhance the storytelling experience for the viewer. Addresses and solves most problems inherent in the elements to be composited. Shows good understanding of differences between uses of Nodes and Layers in selecting workflows. Critically analyzes and presents very good arguments for their creative choices made in using the programs and creating the composites.
B	Shows a good understanding of, and demonstrates ability to utilize most of the advanced capabilities of <i>Resolve/Fusion</i> and <i>After Effects</i> . Creates finished composites that may have minor technical issues without impeding the storytelling experience for the viewer. Addresses and solves most problems inherent in the elements to be composited. Shows reasonable understanding of differences between uses of Nodes and Layers in selecting workflows. Critically analyzes and presents good arguments for their creative choices made in using the programs and creating the composites.

C+	Shows partial understanding of, and demonstrates ability to utilize some of the advanced capabilities of <i>Resolve/Fusion</i> and <i>After Effects</i> . Creates finished composites that may have some technical issues, but for the most part do not impede the storytelling experience for the viewer. Addresses and solves some problems inherent in the elements to be composited. Shows functional understanding of differences between uses of Nodes and Layers in selecting workflows. Analyzes and presents plausible arguments for their creative choices made in using the programs and creating the composites.
C	Shows some understanding of, and demonstrates partial ability to utilize some of the advanced capabilities of <i>Resolve/Fusion</i> and <i>After Effects</i> . Creates finished composites that exhibit some technical issues, to the point where these issues may confuse or impede the storytelling experience for the viewer. Addresses and partially solves some of the problems inherent in the elements to be composited, while missing others. Shows some understanding of differences between uses of Nodes and Layers in selecting workflows. Presents somewhat plausible arguments for their creative choices made in using the programs and creating the composites.
D	Shows lack of understanding of, and demonstrates limited ability to utilize any of the advanced capabilities of <i>Resolve/Fusion</i> and <i>After Effects</i> . Creates finished composites that exhibit significant technical errors, to the point where these issues will impede the storytelling experience for the viewer. Fails to address or solve many of the problems inherent in the elements to be composited. Shows marginal understanding of differences between uses of Nodes and Layers in selecting workflows. Presents implausible or incorrect arguments for their creative choices made in using the programs and creating the composites, or fails to present arguments at all.
F	Shows lack of understanding of, and demonstrates inability to properly utilize any of the advanced capabilities of <i>Resolve/Fusion</i> and <i>After Effects</i> . Creates incomplete composites, or ones that exhibit major technical errors, to the point where these issues will disrupt the storytelling experience for the viewer. Fails to address or solve any of the problems inherent in the elements to be composited. Shows minimal or no understanding of differences between uses of Nodes and Layers in selecting workflows. Presents no plausible or accurate arguments for their creative choices made in using the programs and creating the composites, or fails to present arguments at all.

Learning Outcome #5: Analyze and propose appropriate postproduction fixes for technical issues in production footage using BlackMagicDesign *Resolve/Fusion* or Adobe *After Effects* visual effects workflows.

Assessment Method(s): Students will be required to submit:

- Homework Assignments: 5,6,9,10
- Final Project: Creating and Compositing a Complex Visual Effect
- Quiz #3

Grade Range	Criteria
A	Shows a sophisticated ability to identify solutions for fixing potential problems in source footage, and how appropriate each would be in creating a visual storytelling scenario, and demonstrates skill in using the advanced capabilities of <i>Resolve/Fusion</i> and <i>After Effects</i> in solving these problems. Creates finished composites that have no technical issues and fully addresses and solves any problems inherent in the elements to be composited. Critically analyzes and presents compelling arguments for their creative choices made in using the programs and creating the composites.
B+	Shows a very good ability to identify solutions for fixing potential problems in source footage, and demonstrates skill in using most of the advanced capabilities of <i>Resolve/Fusion</i> and <i>After Effects</i> in solving these problems. Creates finished composites that have only slight technical issues, and which enhance the storytelling experience for the viewer. Addresses and solves most problems inherent in the elements to be composited. Critically analyzes and presents very good arguments for their creative choices made in using the programs and creating the composites.
B	Shows a good ability to identify solutions for fixing potential problems in source footage, and demonstrates skill in using most of the advanced capabilities of <i>Resolve/Fusion</i> and <i>After Effects</i> in solving these problems. Creates finished composites that may have minor technical issues without impeding the storytelling experience for the viewer. Addresses and solves most problems inherent in the elements to be composited. Critically analyzes and presents good arguments for their creative choices made in using the programs and creating the composites.
C+	Shows partial ability to identify solutions for fixing potential problems in source footage, and demonstrates skill in using some of the advanced capabilities of <i>Resolve/Fusion</i> and <i>After Effects</i> in solving these problems. Creates finished composites that may have some technical issues, but for the most part do not impede the storytelling experience for the viewer. Addresses and solves some problems inherent in the elements to be composited. Analyzes and presents plausible arguments for their creative choices made in using the programs and creating the composites.
C	Shows some ability to identify solutions for fixing potential problems in source footage, and demonstrates partial skill in using some of the advanced capabilities of <i>Resolve/Fusion</i> and <i>After Effects</i> in solving these problems. Creates finished composites that exhibit some technical issues, to the point

	<p>where these issues may confuse or impede the storytelling experience for the viewer. Addresses and partially solves some of the problems inherent in the elements to be composited, while missing others. Presents somewhat plausible arguments for their creative choices made in using the programs and creating the composites.</p>
D	<p>Shows lack of ability to identify solutions for fixing potential problems in source footage, and demonstrates limited skill in using any of the advanced capabilities of <i>Resolve/Fusion</i> and <i>After Effects</i> in solving these problems. Creates finished composites that exhibit significant technical errors, to the point where these issues will impede the storytelling experience for the viewer. Fails to address or solve many of the problems inherent in the elements to be composited. Presents implausible or incorrect arguments for their creative choices made in using the programs and creating the composites, or fails to present arguments at all.</p>
F	<p>Shows lack of ability to identify solutions for fixing potential problems in source footage, and demonstrates inability to properly utilize any of the advanced capabilities of <i>Resolve/Fusion</i> and <i>After Effects</i> in solving these problems. Creates incomplete composites, or ones that exhibit major technical errors, to the point where these issues will disrupt the storytelling experience for the viewer. Fails to address or solve any of the problems inherent in the elements to be composited. Presents no plausible or accurate arguments for their creative choices made in using the programs and creating the composites, or fails to present arguments at all.</p>

Rutgers University Disability Policy:

Rutgers University welcomes students with disabilities into all of the University's educational programs. In accordance with 504/ADA guidelines and in order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation:

[Office of Student Disabilities Documentation Guidelines \(https://ods.rutgers.edu/students/documentation-guidelines\)](https://ods.rutgers.edu/students/documentation-guidelines) (Links to an external site.).

If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at:

[Offices of Student Disabilities Registration Forms \(https://ods.rutgers.edu/students/registration-form\)](https://ods.rutgers.edu/students/registration-form) (Links to an external site.).

Academic Honesty:

“Academic dishonesty” means employing a method or technique or engaging in conduct in an academic endeavor that the student knows or should know is not permitted by Rutgers or a course instructor to fulfill academic requirements.

Violations include: cheating, fabrication, plagiarism, denying others access to information or material, and facilitating violations of academic integrity. The student should review Rutgers guidelines at the [Office of Student Conduct \(http://academicintegrity.rutgers.edu/\)](http://academicintegrity.rutgers.edu/) (Links to an external site.)

Rutgers Arts Online courses may use Turnitin and Proctortrack software to authenticate student work.

Self-Reporting Absence Application:

Students are responsible for knowing and adhering to all university and college dates and deadlines. Such dates and deadlines include those for enrollment (registration), adding and dropping of courses, academic holidays, payment and refunds, and applying for graduation. Visit the following website for specific dates: [Academic Calendar \(https://scheduling.rutgers.edu/scheduling/academic-calendar\)](https://scheduling.rutgers.edu/scheduling/academic-calendar). (Links to an external site.)

In a case of emergency, it is the student's responsibility to keep posted on all official University alerts or closures by visiting: [Operating Status \(http://newbrunswick.rutgers.edu/about/operating-status\)](http://newbrunswick.rutgers.edu/about/operating-status) ([Links to an external site.](#)).

Students are expected to attend all classes; if you expect to miss one or two classes, please use the [University absence reporting website \(https://sims.rutgers.edu/ssra/\)](https://sims.rutgers.edu/ssra/) ([Links to an external site.](#)) to indicate the date and reason for your absence. An email is automatically sent to the instructor.

Self-reporting will not be accepted as an excuse in the case of missed submission deadlines for assignments. In this case, you must contact the instructor.

Student Responsibility:

A responsible student is a successful student. At Rutgers, students are expected to conduct themselves in a mature and responsible manner, respect the opinions, rights, and personal property of others, and meet their financial obligations. Students are responsible for seeking help and guidance from all of the resources that the university makes available to them. They are expected to be proactive and remain informed about university dates and deadlines, and understand academic and disciplinary policies. They are responsible for communication with their instructors, advisors, and university staff, and the commitment to being organized and prepared to learn. Above all, our students are expected to strive for honesty and academic integrity throughout their period of study at Rutgers, the State University of New Jersey <http://www.rutgers.edu/academics/catalogs> ([Links to an external site.](#)).

Requirements

Online courses require students to be motivated, self-directed learners who manage time efficiently. Students should expect to invest three to five hours per week reading, listening to music, engaging in threaded discussions, sharing with peers and instructors online, and completing assignments. To do so, students must have access to the internet and a functional email account they can access frequently.

Because this is an online course, there is no equivalent to in-class absence. Students are expected to login regularly and may do so twenty-four hours a day. There is no requirement to be online at specific times except during exam periods, and then the student may take the exam any time within the prescribed window. Coursework must be completed by the dates listed; there are no exceptions. Students should plan their weekly schedules accordingly to accommodate the workload.

To succeed in this course the student must:

- Assignments are expected to be turned in by the assigned due date. *The instructor reserves the right to accept or not accept any late submission. Late submissions, if they are accepted, may be penalized at the instructor's discretion.*
- Technology failures may not be accepted as a reason for missed assignment due dates. Therefore, do not leave anything to the last minute. Back up files frequently and in various locations so work is not lost. It is the student's responsibility to alert the instructor of a technology issue immediately so that the instructor can identify alternative ways to complete or submit an assignment.
- If there is an emergency which prevents the timely submission of an assignment, the student should contact the instructor directly, preferably before the due date. *Do not include information of a private, personal nature. The instructor will provide instructions how to get documentation supporting the event.*
- To prepare for the assessments and written assignments, the student must complete all of the readings. The student must listen to/view all of the media materials if media materials are included as part of the content of the course.
- The content of presentations must adhere to the specific questions and guidelines posed by the instructor or to the thesis developed by the student and approved by the instructor. Written assignments/presentations must utilize media materials (graphic, audio, and video) if required by the instructor.

Students are responsible for all information included in the course. Failure to read all the course documents Academic Honesty Guidelines, Technical Requirements, the Rutgers Disability Policy, and Schedule of Assessment Due Dates, will not excuse anyone from requirements or policies related to the completion of the course.

Rutgers Distance Education:

At Rutgers, The State University of New Jersey, a course delivered through Distance Education is defined according to the Middle States Commission on Higher Education definition. Standard 13 of *Characteristics of Excellence in Higher Education: Requirements of Affiliation and Standards for Accreditation* defines a Distance Education course as an “educational process in which all or the majority of the instruction occurs with the instructor and student in different locations.”

A course is considered to be offered by Distance Education (DE) if students receive more than ½ of the instruction (50%) at a different location than the instructor. A Distance Education course can be delivered synchronously or asynchronously to any single or multiple location(s) through electronic, correspondence, or other means. At Rutgers Arts Online, our distance education

courses are offered outside the traditional classroom setting on campus and asynchronously online. Students receive all of their instruction (100%) online. For more information, please visit the website hosted by the [Middle States Commission on Higher Education](https://www.msche.org/) (<https://www.msche.org/>) ([Links to an external site.](#))

Technology Requirements:

This course uses a learning management system called Canvas to post assignment details, announcements, and provide collaborative opportunities. This course is best viewed through the use of a full desktop or laptop computer. Although Canvas supports the use of mobile devices, the student should intermittently log on to the course using a desktop or laptop computer to be sure that course materials are properly displaying and/or working.

General information for Canvas can be found by visiting the [Rutgers Help Desk Support Center](#) ([Links to an external site.](#))

Net ID problems can be resolved by contacting [Net ID retrieval/activation](#) (<http://NetID.rutgers.edu>) ([Links to an external site.](#))

Support Services:

Student assistance and general information for Canvas can be found by visiting the [Rutgers Help Desk Support Center](#) ([Links to an external site.](#)) or the addresses given below

Website: [Canvas Support Center](#) ([Links to an external site.](#))

Email: help@canvas.rutgers.edu

Phone: 877-361-1134 (Available 24/7)

Live Chat: [Live Chat](#) ([Links to an external site.](#))

If you cannot purchase or download the suggested software programs, utilize the Rutgers Computing Labs for available computers. There are multiple Computing Labs at Rutgers, for locations and times visit [University Computing Labs](https://oit-nb.rutgers.edu/labs) (<https://oit-nb.rutgers.edu/labs>) ([Links to an external site.](#)).

Software or hardware can be purchased at through the [University Software Portal website](#) (<https://oit-nb.rutgers.edu/service/university-software-portal>) ([Links to an external site.](#)).

Technology Competencies/Skills:

Students enrolled in the course must be prepared to perform the basic tasks below.

1. Send and receive email;
2. Attach files to an email message;
3. Locate system information (e.g. browser version, operating system, etc.) for trouble shooting;
4. Recognize, use, and create hyperlinks;
5. Use of basic Microsoft Office programs;
6. Download and install software (including utilities, plug-ins, and/or apps);
7. Copy and paste text using a computer;
8. Scan and remove computer viruses;
9. Plug in external devices to a computer ;
10. Save files to an external device (e.g. flash drive, CD, or DVD);
11. Use an internet search engine to locate online credible resources;
12. Post and reply to discussion forums or chat via instant messaging tool;
13. Send computer screenshot for technical assistance.

Tutorials may be found at:

[PC/Windows tutorial \(http://www.wikihow.com/Take-a-Screenshot-in-Microsoft-Windows\)](http://www.wikihow.com/Take-a-Screenshot-in-Microsoft-Windows) (Links to an external site.)

[MAC/Apple tutorial \(http://www.wikihow.com/Take-a-Screenshot-in-Mac-OS-X\)](http://www.wikihow.com/Take-a-Screenshot-in-Mac-OS-X) (Links to an external site.)

Online Student Etiquette:

This course may host synchronous or asynchronous online meetings. During those meetings consider the following:

- *Keep chats on topic.* Avoid inappropriate conversations that may distract others from the course topic or objective.
- *Avoid strong/loud language. Be polite. Language can easily be misinterpreted in written communication. Before sending an email or chat message make sure it clearly conveys the intended feeling.*
- *Respect privacy of peers.* Do not post someone's personal information online without their expressed permission.
- *Use appropriate dress code on camera.* During a video conference dress as if attending a face-to-face class. Avoid offensive clothing.
- *Be mindful of background noise and scene/location. Take advantage of quiet areas to avoid distractions to fellow classmates. Avoid offensive décor or noise.*

- *Be helpful.* Assist fellow classmates in understanding course materials.

Student Wellness Services:

[Just In Case Web App \(Links to an external site.\)](#)

<http://codu.co/cee05e> (Links to an external site.)

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

Counseling, ADAP & Psychiatric Services (CAPS)

17 Senior Street, New Brunswick, NJ 08901

(848) 932-7884

[Counseling ADAP, and Psychiatric Services \(www.rhscaps.rutgers.edu/\)](http://www.rhscaps.rutgers.edu/) (Links to an external site.)

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901

[\(Violence Prevention and Victim Assistance \(www.vpva.rutgers.edu/\)\)](http://www.vpva.rutgers.edu/) (Links to an external site.)

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Disability Services

Lucy Stone Hall, Suite A145, Livingston Campus,

54 Joyce Kilmer Avenue,

Piscataway, NJ 08854 Tel (848) 445-6800

[Office of Student Disabilities \(https://ods.rutgers.edu/\)](https://ods.rutgers.edu/) (Links to an external site.)

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: [Office of Student Disabilities Documentation Guidelines \(https://ods.rutgers.edu/students/documentation-guidelines\)](https://ods.rutgers.edu/students/documentation-guidelines) (Links to an external site.). If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations.

Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form at [Offices of Student Disabilities Registration Forms \(https://ods.rutgers.edu/students/registration-form\)](https://ods.rutgers.edu/students/registration-form) (Links to an external site.).