# **Christopher S. Russo**

Scenic Technologist

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**Objective:** A position at an institution that uses my mastery of management in theatre production, and/or scenic construction and design. My specific skills include: Scenic Technology, Technical Direction, Drafting and 3D Modeling, designing Automation and Mechanization, fabricating with wood and metal, Production Management, and Projection Engineering.

# **Education:**

#### MFA in Theatre - Yale School of Drama, 2012

- Technical Design and Production with
- Emphasis in Theatre Planning & Consulting and Technical Direction
  - Structural & Mechanical Design, Welding, Machining, Production Process, Consulting in A/V, Stage Equipment, & Theatre Design
- Theatre Safety: OSHA and NFPA
- Thesis: Solar Power for the Theatre: A Case Study on Totem Pole Playhouse

# BFA in Theatre Production – Pennsylvania State University, 2005

- Emphasis on Technical Direction and Scenic Design.
- Architecture Studies Minor with studio work.
- Recipient of the Anne Gibson Award for Professional Development in Theatre Design and Technology 2005.

# **Continuing Education and Certifications:**

- Solar Energy International (SEI) PV101: Solar Electric Design and Installation [03/2012]
- Genie Telescopic Lift Certified
- CPR/First Aid Certified
- Jay O Glerum Rigging Masterclass (Intermediate) Hosted by USITT [06/2018]
  - o Instructors: Ed Leahy and Jonathan Deull
- Entertainment Technician Certification Program ETCP Certified in Theatre Rigging.
- Fall Protection and Rescue Training Seminar Yale School of Drama [07/2019]
  - o Instructor: Neil Mulligan, ETCP Renewal Credits
- SPRAT I Certification CM/Rock Litiz [11/21]
- Beer Brewer Professional Certificate and Internship University of Richmond [12/21]
- OSHA 30 General Industry (Entertainment), Risky Business Resources [8/23]

#### Skills:

Mastery of Carpentry (Scenery, Furniture, Stick Frame Homes, etc.), Welding (MIG, TIG, Oxy-Acetylene, Stick, Brazing, Soldering), Machining/Metal Fabrication (Scenery, Bridgeport, CNC Mill, Lathe, Iron Worker), Mechanization (Physics of Stage Machinery, Gear-Motors, Chain Stages, Moving Scenery), Structural Design, Automation (Hudson Systems, Creative Conors, PLC controls, Limits, E-Stops, Inverters, wiring, disconnects), PLC Logic Programming, Rigging (ETCP Certified - Theatrical Rigging, Aerial, Circus, Counter Weight Fly Systems, Chain Hoists, Truss, Safety, Rope Access, Rescue), Electrical Wiring and Load Control, Lighting (ME, Hanging, Focusing, Troubleshooting), ETC Board Op, Basic Lighting Design, Basic Sound Design, Basic Sound Mixing (Yamaha CL5), Set Design, Textile Fabrication (Hand Sewing, Machine Sewing, Drops and Drapes), Property Artistry (Molds, Sculpting, Furniture, Running, Acquisition), Basic Scene Painting, Hand Drafting, Isometric Drawing and Sketching, Building and repairing computers, Windows and Apple, AutoCAD (Build Drawings, 2D, 3D, some Inventor, some Revit, some Electrical), Vectorworks, Sketchup, Spikemark, Microsoft Office (Excel, Word, PowerPoint, OneNote, Visio, Access), Adobe (Acrobat, Photoshop, Premiere, After Effects, Illustrator, InDesign), Video Editing, Projection Engineering, Watchout Programming, Q-Lab, Isadora, VCarve tool pathing, Shopbot, IP Networking, Cable Management, Budgeting, Production Planning, Health and Safety (Theatre Standards, Shop, NFPA, NEC, OSHA), Theatre Consulting and Planning (Stage Machinery, Audio/Visual, Acoustics), Audio/Visual Installations, Sustainability, Solar Power, Plumbing, Home Improvement, CPR, First Aid, Fork Lift/Zoom Boom Operation, Genie Lift Certified, Front of House Operations, Production Management, Equity Contracts, Theatre Season Planning, Company Management.....

# **Experience:**

# Penn State University, University Park, PA USA

**Associate Teaching Professor / Technical Director** [08/2022 – present] (Academic Calendar)

Responsibilities and duties within the Department of Theatre & Cinema:

- Serve as Faculty Technical Director for the School of Theatre
- Supervise an Associate Technical Director, props master and scenic artist
- Work closely with the School's Production Manager and Director on all production-related planning and budgeting
- Teach classes in technical direction including, rigging, intro to TD, Introduction to the scene shop, AutoCAD, and other advanced topics in Technical Direction
- Maintain the Rigging and Automation Lab for the School of Theatre
- Work in conjunction with the ATD to ensure scene shop operations are completed on time and on budget
- Mentor TD students through the production process from design through strike
- Advise students on classes, and career choices
- Actively participate in recruitment activities
- Provide Automation Expertise and design as needed for School of Theatre Productions
- Serve on committees as necessary

# Virginia Tech School of Performing Arts, Blacksburg, VA USA

Associate Professor of Practice / Technical Director [08/2017 – 07/2022] (Academic Calendar)

Responsibilities and duties within the Department of Theatre & Cinema:

- Technical Supervisor/Director of the mainstage productions, workshops, and theatre events.
- Primary Advisor of the Technical Direction Program within the MFA in Theatre Program
  - o Instruction of technical theatre and production to graduate students.
- Instruction of technical theatre courses to undergraduates.
- · Advancement of curriculum in experiential learning.
- Collaborate with faculty, staff, and students on the planning, management, implementation, and safety of all
  phases of production, specifically related to scenic and technical elements, for the Department of Theatre and
  Cinema's mainstage productions and workshops.
- Produce cost analyses, construction drawings, and build schedules.
- Manage scene shop activities, and theatre facilities and equipment.
- Track expenditures for scenic, scene shop, and equipment related budget lines; as well as propose Equipment Trust Fund requests, and administer Department of Theatre equipment inventory tracking on a regular basis.
- Oversee the duties and responsibilities of the Scene Shop Supervisor and co-manage the health and safety of the scene shop and theatre spaces.
- Supervise student involvement on scenery construction and provide guidance and mentorship for students
  performing technical management roles on productions for the purpose of realizing scenic, prop, and lighting
  designs.
- Actively recruit and mentor students in the MFA in Theatre Program; and specifically administer/teach the Technical Direction Program Area within the MFA in Theatre Program as the Primary Advisor.
- Teach undergraduate and graduate courses in stagecraft, technical design and production, and production management, with the option of teaching in a secondary area.
- Participate in technical rehearsals and production meetings for the mainstage productions.
- Engage in departmental services: recruiting, structural committees, season planning, and faculty meetings.

#### Virginia Tech School of Performing Arts, Blacksburg, VA USA

Instructor of Scenic Technology / Shop Supervisor [01/2014 – 08/2017] (Academic Calendar)

Responsibilities and duties within the Department of Theatre & Cinema:

- Manage and maintain the Scene Shop and Studio Theatre: tool upkeep, shop and storage organization, ordering of supplies and materials, ensure safety measures are met.
- Supervise the installation of technical aspects (scenery, lights, and props) for all mainstage productions.
- Instruct graduate and undergraduate students in Technical Direction, scenic construction, and tool usage (wood and metal construction). Teach courses in technical theatre: Production Process, Projections, Drafting, Studios.

- Work, and instruct, on special projects for productions, including automation and CNC.
- Attend and participate in faculty and production meetings and sit on various committees.
- Participate in the recruiting of new students and represent the School at conferences (USITT, SETC, LiNK).
- Monitor Student and Graduate Assistant hours.
- Maintain shop purchases and budgets
- Maintain inventory of Department of Theatre's fixed assets in conjunction with other departments in the School.

# Yale Repertory Theatre/Yale School of Drama (Lort-D/Academia), New Haven, CT. USA

## **Head Projections Technician**

[10/2012 - 12/2013] (Academic Calendar)

Responsibilities and duties:

- Serve as projections staff and support for projection engineers and designers for the Rep and School.
- Build and maintain projections equipment including cabling, computers, components, and networking. Build sound baffling and projector mounts as needed.
- Implement system designs from system-flow-diagrams and trouble-shoot signal issues. Assist in instructing students on the projection engineering process.
- Prepare computer systems for programing, and serve as Watchout™ programmer when needed.

### Long Warf Theatre, New Haven, CT. USA

#### Over-hire Technician

[10/2012 - 12/2013]

Shop Carpenter and Lighting Crew

# Totem Pole Playhouse (AEA Summer Stock Theatre), Fayetteville, PA. USA

**Associate Producer (Production Manager)** † [04/2013 – 09/2013] [04/2014 – 09/2014] [04/2015 – 07/2015]

**Associate PM/House Manager/Scenic Designer** [05/2012 – 08/2012] **Associate Production Manager/Scenic Designer** [05/2011 – 08/2011]

**Technical Director** [05/2008 – 08/2008] [05/2009 – 08/2009] [05/2010 – 08/2010]

**Scenic Designer/Master Carpenter** [05/2004 – 07/2004] [05/2005 – 07/2005]

**Associate Technical Director** [05/2001 – 08/2001] [05/2002 – 08/2002] [05/2003 – 08/2003]

 Properties Master
 [05/2000 - 08/2000]

 Technical Intern
 [05/1999 - 08/1999]

**Usher** [05/1991 – 08/1991] [05/1992 – 08/1992] [05/1993 – 08/1993]

Responsibilities and duties over the years:

- †Manage all production departments for entire 4-7 show season. Hiring and recruiting Production Staff. Manage and maintain season department/show budgets. Familiarity with, and enforcing, the Equity Contract.
- †Technically draft scenic units for construction, engineer intricate scenic elements. Instruct interns and Production Staff on various technical theatre aspects.
- Build new scenery and addapt stock scenery for 6 shows per summer season. Create, read and build from hand drawings and CAD drawings.
- Maintain budgets for scenic department, and scene shop, including tool maintenance and hardware stock.
- Loadin and strike scenery, supervise other employees and interns, coordinate and lead build, strike/load-in. Instruct interns on shop and construction techniques.
- Scenic Design for seven productions: Weekend Comedy '04, Funny Money '05, Compete History of America '10, Moonlight and Magnolias '11, Almost, Maine '12, Godspell '14, Shenandoah '15
- †Maintain Facilities: HVAC, repairs, FOH management, Company Management
- Involved in 90+ productions over the course of 15 seasons, with all departments, yet almost entirely scenically devoted.

## Sightline Fabrications, Brooklyn, NY (Commercial Scene Shop)

# **Carpenter** [2/2009 – 04/2009]

Build scenery, wood and metal construction.

## Cirque du Soleil, Montreal Canada (Touring Shows Division)

**Head Carpenter**, *Alegria* [10/2006 – 02/2008] **Swing Technician**, *Alegria* [07/2005 – 10/2006]

Duties and responsibilities for the Carpentry Department: Authority of all workings of the stage and set, including Automation equipment.

- Schedules and planning for employees in the Carpentry Department.
- Maintenance for stage and set.
- Planning of city transfers, including intercontinental transfers including 7 truck loads.
- Leading teams in assembling and disassembling stage and set.
- Supporting the Artistic Department; rehearsals, staging, ASM.
- Running and maintaining show integrity onstage and back stage.
- Hiring and training of new employees.
- Creating and reading AutoCAD drawings for stage, set, big top tent, and site.
- Assist in and orchestrating the assembly and disassembly of the stage, set, and big top tent.
- Work as Crew, Stage Carp, and Back Stage Manager for performances.
- Visited 14 countries on three continents while on tour.

### Eisenhower Auditorium, State College, PA USA (IATSE Venue)

Core Student Stage Crew Member

[10/2001 - 10/2004]

#### Bear Construction, Fort Collins, CO. USA

Carpenter/Framer Residential Construction [09/2000 - 05/2001]

# Conferences:

# <u>United States Institute for Theatre Technology (USITT) – Active Member</u>

Toronto, Ontario	2005	<del></del>
Salt Lake City, Utah	2016	Session Presenter – "Make It Move", Wagon Technology
St. Louis, Missouri	2017	
Ft. Lauderdale, Florida	2018	Conference Committee – Technical Director for the Outdoor Venue
Louisville, Kentucky	2019	Conference Committee – Production Manager for the Expo Floor
Houston, Texas	2020	Conference Committee – Production Manager for the Expo Floor
		*Cancelled event
Baltimore, Maryland	2022	Conference Committee – Production Manager for the Expo Floor
Seattle, Washington	2024	Conference Committee – Production Manager for the Expo Floor
Columbus, Maryland	2025	Conference Committee – Production Manager for the Expo Floor

#### South Eastern Theatre Conference (SETC)

Greensboro, North Carolina	2016
Lexington, Kentucky	2017
Mobile, Alabama	2018

## <u>LiNK – Graduate Recruiting Event (USITT/SETC)</u>

Atlanta, Georgia	2016
Atlanta, Georgia	2017
Atlanta, Georgia	2018
Atlanta, Georgia	2019

#### Thespians

Virgina	2017	Basic Automation Workshop
Pennsylvania	2023	·
Pennsylvania	2024	Technical Direction Workshop

# **Teaching Accomplishments:**

Areas of Specialization: Scenic Construction, Carpentry, Tool and Shop Use, MIG Welding, Milling and Machining, Basic Scene Painting, Technical Drafting (Hand Drafting/AutoCAD), CNC Pathing, Furniture Construction, Mechanical Design, Automation Design, Structural Design, Electrical Design and Wiring, Theatrical Rigging, Production Management, Theatre Safety, Technical Writing, Theater Architecture and Consulting, Projection Engineering and Watchout Programming...

# Courses Taught at Penn State

THEA 280 Introduction to Tec

Introduction to Technical Direction – BFA Design & Tech Core Course
Taught: FA 2022, FA 2023, FA2024

3 Credit Hour

Introduction to the methods, materials, equipment, facilities, *concepts*, and processes associated with Technical Direction for the Theatre. THEA 280 Introduction to Technical Direction for the Theatre (3) This course will familiarize students with the methods, materials, equipment, facilities, *concepts*, and processes used by Theatre Technical Directors to produce the spectacle of theatre. The concepts of project management will be *introduced*, and the processes associated with project management will be explored. The steps involved in producing a technical package that will facilitate the implementation and completion of a production will be introduced and *explored*. The emphasis of this course will be on exploring how Technical Directors bring designs to reality on the stage. The planning and management processes will be introduced and explored through the use of exercises and projects that will reinforce and inform the lectures.

# THEA 482 Theatrical Rigging – BFA Design & Tech Core Course

3 Credit Hour

Taught: FA 2022, FA 2023, FA2024

This course is an in-depth exploration of current rigging techniques used in the entertainment industry. The importance of understanding the safety of overhead rigging is the core of this course. Such topics discussed in this course will be rigging math involved in identifying static loads on structures and architecture, strengths of materials, safe loading practices, rigging components, rigging techniques, and experience in the use of theatre rigging. Upon completion, students will demonstrate competency in rigging equipment and the ability to carry out typical rigging tasks and scenarios safely and efficiently.

### THEA 480 Advanced Technical Direction Topics – BFA Design & Tech Course

3 Credit Hour

Taught: SP 2023, SP 2024, SP 2025

Advanced study of the methods, materials, equipment, facilities, concepts and processes associated with Technical Direction for the Theatre. THEA 480 Advanced Topics in Technical Direction for the Theatre (3 per semester/maximum of 6) This course will build on the foundations established in THEA 280. Students will be engaged in studying advanced topics through discussions and explorations of current theatre technology, communication and the management systems used to control the processes associated with modern technical direction. Examples of topics include project management, current trends in drafting, advanced technical packages, and structural design for the stage. This course is repeatable and topics will vary. Students will participate in class discussions, hands-on exploration of equipment, investigate current practices through observation and research, and will complete projects associated with the topics studied.

#### THEA 452 CAD Drafting for Theatre and other Entertainment Apps – BFA Course

3 Credit Hour

Taught: SP 2023, SP 2024, SP 2025

CAD Drafting for theatre is an Advanced level course that focuses on the technical aspects of drafting. Students will become well versed in the use of CAD drafting programs such as AutoCAD. Students will learn all of the essential functions to accurately convey information through graphical representations in both 2D and 3D models. This course is geared specifically towards how to use CAD programs to convey information for theatrical and entertainment uses such a technical drafting, scenic elevations, lighting plots, sound diagrams and other entertainment documentation. In addition to learning about the effective use of a CAD program, students will also learn theatrical drafting standards and techniques. This includes information on standardized paper sizes, line weights and styles, use of color, dimensioning guidelines and other pertinent drafting standards. By the end of this course students will have the necessary knowledge to effectively draft, plate and present drawings in both 2d and 3d models for use in entertainment based productions.

#### THEA 189 Principles of Stagecraft

1 Credit Hour

Taught: FA 2022, SP 2023, Fall 2023

For non-theatre major students only, theatre minors are ok. This course meets the Bachelor of Arts degree requirements. Ever see a show and wonder how did they build that? THEA 189 provides introductory knowledge in to scenic, property and costume construction painting techniques, lighting technology, and safety used in theatre today. This is accomplished through online and lab components. The online component is presented in the form of modules that students take at heir own pace. These modules delve into the various topics listed above. Since the course is repeatable, multiple modules are available for each topic. Once the student has taken the class once, the next time they take the class they will simply complete another module on each topic. The lab component will provide hands-on experience in

the topics learned online. Students will have the ability to work within one of the technical areas of scenery, props, paints, costumes or lighting, helping to build, hang, costume, prop or paint a produced show.

### THEA 489 Theatre Production Practicum

1 Credit Hour

Taught: FA 2022 to present

Supervised experience in production techniques. For theatre majors only.

#### Courses Developed and Taught at Virginia Tech

#### TA 3144

# Projection Engineering – Theatre Technology Topics

3 Credit Hour

Taught: SP 2015, SP 2017, SP 2019, SP 2020

This course introduces the technology and process of achieving a Video Projection Design. Topics discussed are: Video Transmission Protocols, Projection Equipment, Computer Architecture, Aspect Ratios and Resolution, Lens Calculations, Drafting and System Flow Diagrams, Watchout Programing, Practical Applications, Live Feed Integration, Content Acquisition and Creation.

#### TA 3144/5504

# **Managing Collaboration – The Production Process** (Graduate Studio) Taught: Fall 2015, Fall 2016, Fall 2017, Fall 2018, Fall 2019, Fall 2020

3 Credit Hour

This course focuses on the principals and methods of production planning used by typical theatre managers within the regional theatre model. Study in this course is approached from technical examples and projects, although the skills and techniques are applicable across any discipline. All projects, small or large, involve similar logistical methods of process and organization. Areas of focus in this course are: Product Design, Budgeting, Scheduling, Calendars, Staffing, Unions, The Role of the Manager, Touring, and Theatre Safety (OSHA and NFPA).

#### TA 3144

# Drafting for the Stage - Theatre Technology Topics

3 Credit Hour

Taught: Fall 2017, Fall 2018, Fall 2019, Fall 2020

This course will introduce the key process in communicating scenic and technical designs graphically through drafting standards outlined by USITT. A progression from simple hand drawing, to hand drafting tools and techniques, and ultimately to computer aided tools will facilitate the understanding and appreciation for the art of drafting whether it be by pencil or mouse in hand. Most notable topics will include: Hand Drawing & Drafting Techniques, Drafting Standards for Theatre, Orthographic and Isometric Drafting, Computer Aided Drafting, and Drafting in 3D with AutoCAD.

#### TA 3144

# **Shop Technologies – Theatre Technology Topics** Taught: SP 2017

3 Credit Hour

As a continuation of Stage & Lighting Technology and Scene Shop Production Lab, this course covers the following five areas: Stage Rigging, Welding Techniques, CNC Router use, Advanced Carpentry Techniques and Tools, and metal Machining with the Mill and Lathe. The majority of class time will be experiential learning working on projects that use the techniques needed to understand the covered topics.

## TA 3014 Production Scene Shop Lab

1 Credit Hour

Taught: SP 2014, Fall 2014, SP 2015, Fall 2015, SP 2016, Fall 2016, SP 2017, Fall 2017

This course is intended to expose students to the scenery build process in a scene shop. Students will be exposed to tool use and basic material handling while assisting in the build of the season's mainstage productions. Upon completion, students should be familiar with typical scenic construction techniques, be able to use common hand and power tools for wood and metal construction, and understand safety practices in a shop setting.

#### TA 3014 **Production Run Crew Lab** – New Course

1 Credit Hour

Taught: Fall 2016, SP 2017, Fall 2017, SP 2018, Fall 2018, SP 2019, Fall 2019, SP 2020

This course is intended to expose students to a theatrical production while working "behind the scenes". In addition, this course helps supply SOPA's main stage theatre productions with supporting roles that are non-performance based. A run crew role is typically a job, part, or duty relating to working backstage, or assisting one of the production areas in a multitude of ways. Upon completion, students should be able to demonstrate and understand the responsibilities and requirements involving being run crew on a production. Additionally, students will develop and have appreciation for collaborative skills surrounding the rehearsal and performance process.

#### TA 2414

**Stage & Lighting Technology –** Redesigned Degree Required Course Taught: Fall 2017, SP 2018, Fall 2018, Fall 2019, SP 2019, SP 2020, Fall 2021

3 Credit Hour

Students will be given an ability to collaborate and/or communicate in the industry with confidence and understanding of theatre production from the technical perspective; i.e. scenic, and lighting areas. Students will be given an ability to collaborate and/or communicate in the industry with confidence and understanding of theatre production from the technical perspective; i.e. scenic, and lighting areas.

# TA 3144/5534 **Stage Rigging** – New Topics Course Taught: SP 2019, SP 2020

3 Credit Hour

The importance of understanding the safety of overhead rigging is the core of this course. Such topics discussed in this course will be rigging math involved in the strengths of materials and safe loading practices, rigging components, rigging techniques, and experience in the use of theatre rigging. Upon completion, students will demonstrate competence of rigging equipment and the ability to carry out typical rigging tasks and scenarios safely and efficiently.

TA 5514 **Structural Design for the Stage I** (Graduate Studio – New Topics Course) 3 Credit Hour Taught: Fall 2017, Fall 2018, Fall 2019, Fall 2020

This course concurrently develops the pre-calculus mathematics and physical sciences requisite for advanced study in modern theater technology, and concentrates on the application of statics to the design of safe scenic structures. Assignments relate structural design principles to production applications. Scope includes: Geometric Properties; and Sawn Lumber Beam and Column Design. Upon completion, students will be able to calculate within safe margins the capacities of certain loading conditions with wood construction components, such as beams and columns. Students will demonstrate a vocabulary and understanding that is present in mechanical, and structural engineering.

# TA 5514 **Structural Design for the Stage II** (Graduate Studio – New Topics Course) 3 Credit Hour Taught: SP 2018, SP 2019, SP 2020

This course concurrently develops the pre-calculus mathematics and physical sciences requisite for advanced study in modern theater technology, and concentrates on the application of statics to the design of safe scenic structures. Assignments relate structural design principles to production applications. Scope includes: Steel Beam and Column Design. Upon completion, students will be able to calculate within safe margins the capacities of certain loading conditions with **steel** construction components, such as beams and columns. Students will demonstrate a vocabulary and understanding that is present in mechanical, and structural engineering.

# TA 5524 *Mechanical Design for the Stage I* (Graduate Studio – New Topics Course) 3 Credit Hour Taught: SP 2018, SP 2019, SP 2020

This course is the precursor of Mechanical Design for the Stage II. To design mechanization for a theatrical production, one must first understand the physics involved to make things move. This course serves to introduce, or review, the fundamentals of physics that relate to typical scenery used in theatrical productions. Understanding how to calculate the forces involved in scenery movement will enable students to understand sizing, rating, and calibration of industrial equipment used in moving scenery. Students will gain an understanding of the "physics of stage machinery" mostly used in scenic construction, automation, mechanization, and rigging. Students will demonstrate the ability to calculate, within a basic margin, how to determine the physical constraints and power formulas for loads found in scenery mechanization and automation. Students will understand what it takes to make things move, and the knowledge gained will prepare the students for the next steps; Mechanization Components and Equipment.

# TA 5524 *Mechanical Design for the Stage II* (Graduate Studio – New Topics Course) 3 Credit Hour Taught: Fall 2018, Fall 2019, Fall 2020, Fall 2021

This course is the continuation of Mechanical Design for the Stage I. To design mechanization for a theatrical production, one must first be introduced to the mechanical equipment involved to make things move. This course serves to introduce, or review, the machinery components that relate to typical scenery used in theatrical productions. Understanding what machine components involved in scenery movement will enable students to understand available industrial equipment used in moving scenery. Students will gain an awareness of the "Stage Machinery Components" mostly used in scenic construction, automation, mechanization, and rigging. Students will demonstrate the ability to identify machinery components, and understand in which scenarios to use equipment. Students will understand what it takes to make things move, and the knowledge gained will prepare the students for the next steps of Mechanical Automation of Scenic Elements.

TA 5524 *Mechanical Design for the Stage III* (Graduate Studio – New Topics Course) 3 Credit Hour Taught: Spring 2021, Spring 2022

This course is the continuation of Mechanical Design for the Stage II. The focus of this course is to apply knowledge from the previous courses in Mechanical Design to implement automated scenery in a studio or production setting. Primarily designs will include lifts, revolves, tracked scenery, and rigging.

TA 5504 **Technical Design Concepts** (Graduate Studio – New Course) 3 Credit Hour Taught: Fall 2018, Fall 2019, Fall 2020, Fall 2021

This graduate course focuses on advanced problem solving for technically challenging problems found in technical design for the theatrical stage. Through experiential tasks in electricity and electronics, coding, programming, structural design, and automation and mechanization, students are prepared for a wide range of issues that arise in the field of Technical Theatre. Having successfully completed the course students will be able to: Break down typical technical scenarios into manageably solvable parts. Develop elegant solutions through calculation, research, and collaborative brainstorming. Express ideas legibly through various media. Design functional and efficient solutions to technically challenging problems and scenarios. Prepare budgets and detailed procedures for implementing technical theatre designs. Interpret, and formulate solutions to, potential complications and hazards that arise in typical technical theatre design situations and scenarios.

TA 5416/5426/5436 **Production Studio I, II and III** (Graduate Studio – Production Assignments) 3 Credit Hour Taught: SP 2017, SP 2018, SP 2019, Fall 2020

Mentorship of graduate students on either a specific topic or a mainstage production. Course work is individualized.

# **Graduate Committees and Advising**

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Andy Nafts	Technical Direction	Committee Member/Secondary Advisor	2014 – 16
Donna Thompson	Arts Leadership	Committee Member	2014 – 17
William Caldwell	Arts Leadership	Committee Member	2014 – 17
David Salmo	Arts Leadership	Committee Member	2015 – 18
Felicia Havens	Props Design and Management	Committee Member/Secondary Advisor	2015 – 18
Lauren Chilton	Props Design and Management	Committee Guest/Secondary Advisor	2015 – 18
Tanner Upthegrove	Sound Design / Technical Direction	Committee Member/Secondary Advisor	2015 – 19
Gabrielle Piazza	Arts Leadership	Committee Member	2016 – 19
Joseph Fry	Technical Direction	Primary Advisor	2017 - 20
Henry Coleman	Technical Direction	Primary Advisor	2018 - 21
Diksha Pilania	Scenic and Props Design	Committee Guest/Secondary Advisor	2018 - 21
Joseph Link	Technical Direction	Primary Advisor	2019 - 22
Daniel Solomon Holland	Technical Direction	Primary Advisor	2020 - 23
Rachel Kilgore	Stage Management	Committee Member	2020 - 23
Alexander Munn	Props Design	Committee Member	2021 - 23
Raymond Reehill	Technical Direction	Committee Member/Advisor	2022 - 23

# каутопо Reehill Production Advising

Production Advising			
A Midsummer Night's Dream	Andy Nafts	Technical Director	Spring 2015
A Midsummer Night's Dream	Allison Hall	Lighting Designer	Spring 2015
Glengarry Glen Ross	Lauren Chilton	Props Master	Fall 2016
Importance of Being Earnest	Felysia Havens	Props Artisan	Spring 2018
Importance of Being Earnest	Joseph Fry	Technical Director	Spring 2018
Decision Height	Joseph Fry	Props Master	Fall 2018
Angels in America: Part I	Joseph Fry	Technical Director	Fall 2018
Angels in America: Part I	Diksha Pilania	Props Designer	Fall 2018
The Foreigner	Joseph Fry	Automation Designer	Spring 2019
The Foreigner	Diksha Pilania	Props Designer/Set Designer	Spring 2019
The Foreigner	Cheyenne Clevenger	Props Artisan	Spring 2019
As You Like It	Henry Coleman	Technical Director	Spring 2019
As You Like It	Joseph Fry	Rigger	Spring 2019
How I Learned to Drive	Henry Coleman	Props Master	Fall 2019
How I Learned to Drive	Joseph Link	Master Carpenter	Fall 2019
Balm in Gilead	Henry Coleman	Technical Director	Fall 2019
Balm in Gilead	Joseph Link	Assistant Technical Director	Fall 2019
Pippin	Joseph Link	Technical Director	Spring 2020
Pippin	Henry Coleman	Assistant Technical Director	Spring 2020
Pippin	Joseph Fry	Assistant Technical Director	Spring 2020
Wondrous Strange	Daniel Solomon Holland	Technical Director	Fall 2021
Sweat	Daniel Solomon Holland	Technical Director	Fall 2021
Starcrossed**	Daniel Solomon Holland	Technical Director	Spring 2022
Starcrossed**	Alexander Munn	Props Master	Spring 2022
Men on Boats	Daniel Solomon Holland	Technical Director	Spring 2022
Men on Boats	Alexander Munn	Props Master/Designer	Spring 2022
Rent	Raymond Reehill	Technical Director	Fall 2022
Rent	Lauren Petrocelli	Assistant Technical Director	Fall 2022
Everybody	Daniel Dembek	Technical Director	Spring 2023
Into the Woods	Riley Allsop	Technical Director	Spring 2023
Into the Woods	Vega Hernandez	Assistant Technical Director	Spring 2023
Into the Woods	Emily Simpson	Assistant Technical Director	Spring 2023
Emilia	Emily Simpson	Technical Director	Spring 2023
Emilia	Hailey Sanchez	Assistant Technical Director	Spring 2023
Hit the Wall	Hailey Sanchez	Assistant Technical Director	Fall 2023
NP & the Great Comet of 1812	Daniel Dembek	Assistant Technical Director	Fall 2023
NP & the Great Comet of 1812	Ramond Reehill	Assistant Technical Director	Fall 2023

Bonnets	Hailey Sanchez	Technical Director	Fall 2023
Urinetown	Emily Simpson	Technical Director (Honors Thesis)	Spring 2024
Urinetown	Nick Baror	Assistant Technical Director	Spring 2024
Tartuffe	Vega Hernandez	Technical Director	Spring 2024
Bernarda Alba/Falsettos	Raymond Reehill	Technical Director	Spring 2024
Sweeney Todd	James Wogast	Assistant Technical Director	Fall 2024
Sweeney Todd	Nicolas Baror	Assistant Technical Director	Fall 2024

# **Departmental Committees**

Penn State	Search Committee Chair, ATD	2022-2023
Penn State	HOD	2022-present
Penn State	Safety Committee	2022-present
Virginia Tech	Theatre and Cinema Curriculum Committee - Chair	2019-2022
Virginia Tech	Theatre and Cinema Curriculum Committee	2015-16, 2016-17, 2017-18, 2018-19
Virginia Tech	Theatre and Cinema Recruiting Committee	2016-17, 2017-18, 2018-19
Virginia Tech	MFA in Theatre Graduate Steering Committee	2016-17, 2017-18, 2018-19
Virginia Tech	Search Committee – Stage Management Faculty	2016
Virginia Tech	Chair Search Committee – Shop Supervisor Faculty	2017
Virginia Tech	Search Committee – Scene Design Faculty	2019
Virginia Tech	Chair Search Committee – Sound Design/Eng. Faculty	2019
Virginia Tech	Chair Search Committee – Shop Supervisor Faculty	2021
Virginia Tech	Chair Search Committee – Assistant Technical Director	2022

# **Virginia Tech Departmental Contributions**

Scenic Shop and Facilities Specific Funds Manager	2014 – 20
Technical Equipment and Storage Manager	2014 – 20
Vehicle Manager	2014 – 20
Hazcom Coordinator	2014 – 20
Graduate Handbook Author and ongoing Editor	2017 – 20
Graduate MFA in Theatre Brochure Editor	2018
Equipment Trust Fund Manager - Scenic	2015 – 20
Theatre Inventory Requisition Manager	Summers 2016, 2018
Automation Systems Retrofitting and Curator (Creative Conners)	2015 – 19
Haymarket Theater Counterweight Rigging System Curator	
Lift Line Replacement	Spring 2019 – 22
Rlack Boy Theatre Audio / Visual Retrofit	Summer 2018

Lift Line Replacement

Black Box Theatre Audio / Visual Retrofit

Summer 2018

Studio Theater Booth Retrofit (Counter and Sound System Remodel)

Coordinated the revision of Theatre & Cinema Degree Checksheets

and Roadmaps 2019 – 20

Annual Theatre Degree Assessment Reporting 2019-20, 2020-21, 2021-22

## Specific Creative Work at Penn State

#### Metamorphosis Pool Filtration and Heating

• Implementation of consistent water heating and filtration equipment, marginally successful.

### Hit the Wall Rotating Wall and Bridge Platform

- Structural Design for 26 x 8 foot bridge.
- Design for 26 foot long double sided rotating wall under structural bridge.

# **Integration of new Creative Conners Equipment**

• Facilitated current and new stock into functional fleet of automation equipment including deck winches, Pushstick Mini, Revolver V2, Spotline V2, Stagehand Apprentices, and Stagehand FX.

### American Repertory Theatre, Portal

 Managed the design and build of a large portal for a production for ART, which brought in revenue for SOT TAPS.

#### Keegan Theatre, Turntable

- Managed the design and build of a 22 foot diameter turntable and surrounding platforms, which brought in revenue for SOT TAPS.
- A sister turntable was also built for SOT scenery stock.

#### Summer of 2024 SOT projects

Managed facility upgrades for classrooms, shops, fueling station, video studio, and storage.

#### Sweeney Todd Automation

- Design and implementation of three axes of automation: automated line set, automated "turtle" (tracking and rotation platform) with two story set with an overhang.
- Designed the Barber Chair with a trap door and a slide for pie fodder.

#### How to Succeed in Business Automation

- Managed the design and build of an automated elevator unit that flies on a motorized line set and has automated elevator doors, and an automated tracking system for two traveler track units.
- Rigging design for flown actors.

### Specific Creative Work at Virginia Tech

#### **Trap Door for Spring Awakening**

- Structural analyses on support members, and design for three traps built in one.
- Hydraulic power utilization and installation.

# Multiple Moon Box Movement for Midsummer Night's Dream

- Seven Moon boxes mounted behind a RP Screen, Five of which moved, all using different light sources.
- Stock Winch design using D/C motors, chain stages, SCR controllers, logical limit and toggle switching for controlled motion and automatic stop, and innovative track design using Wahlberg winches.

#### Metal Construction for The Divine: A Play for Sarah Bernhardt

- Efficiency in design for cut, build, and installation: repeatable part fabrication, multiple use of jigs, multi-stage installation with chain motors.
- Design package with spreadsheets and jig plans.

#### Circular Sunroof Trap Design for Mr. Marmalade

- Structural analyses on support members and pneumatic specification, and design package.
- Integration of Creative Conners winch, Spikemark software, limit switching, and pneumatics.

#### Crypt Rise Effect for Nosferatu

- Structural analyses on support members and pneumatic specification, and design package.
- Large pneumatic piston used for vampire raising from a crypt in controlled silent motion.

### **Double Sunroof Trap and Lift for Fun Home**

- Structural analyses on support members, and intricate design package for two axes of automation.
- Integration of Creative Conners winches, Spikemark software, limit switching, and pneumatics.
- Innovative single tower design using a 2:1 cable pathing, and a cantilevered platform design; 600# lifting capacity.
- Locking pin stabilizer design for lift platform using pneumatic pistons and limit switches.

### **Tracking Platforms for Decision Height**

- Intricate design package for three axes of automation.
- Stock/Modular track design.
- Integration of Creative Conners winches, Spikemark software, independent pneumatics, and Arduino Microcontroller via wireless Bluetooth switching for pneumatics.

#### Cable Lift for The Foreigner

- Supervised the design of graduate students/technical assistants: Cable Rigging and Reeving
- Integration of Creative Conners winch, and Spikemark software.

## Rotating Platform for As You Like It

- Led the design with technical assistants: modify Creative Conners Revolver V1 to be mounted under stage deck on trap unit (installed as one 500 lb. unit), friction drive on slew ring, friction drum brake on slew ring.
- Led the projection mapping on platform, and show control between Watchout and Creative Conners to track images to the rotation of the platform.

### Set Design for How I Learned to Drive

- Vectorworks 3D modeling and animation.
- Projection Design and mapping using HD Projectors on dome shaped surfaces, Watchout programming.

Integration of pneumatic slip stage

## Slip Stage with Tracked Bed Unit/Locking Device for Banquet Unit for Balm in Gilead

- Supervised the design of graduate students/technical assistants: Stock/Modular track design.
- Integration of Creative Conners winches, Spikemark software, and independent pneumatics

# Technical Design, Projection Engineering and Programming, and Production Manager for Palleas et Mélisande

• SEAD Grant Production to integrate Projection Design and Opera Production- Moss Arts Center [6/21]

### Retracting Lighting Fixtures for Starcrossed

• Led the design with technical assistants: LED Strip Lights mounted to weighted box tube and rigged to fly independently with Wahlberg DMX winches. [2/22]

#### Mechanical Rope Decent Effect for Emilia

- Led the design with technical assistants: Motorized winch with 8 drums that deploys 8 ropes in 20 seconds, unit is retractable from grid for easy resetting. [3/23]
- Sourced components and completed full set of drawings.

# **Production Register:**

Production	Role	Director	Designer	Org.	Year
A Christmas Carol	Turkey Boy	Carl Schurr	James Fouchard	TPP	1989
A Christmas Carol	Turkey Boy	Carl Schurr	James Fouchard	TPP	1990
A Christmas Carol	Stage Crew	Carl Schurr	James Fouchard	TPP	1991
The Pursuit of Happiness	A Son of Liberty	Carl Schurr	Cathleen Rooney	TPP	1999
The Good Doctor	Props Master	Vincent M. Lancisi	Russel Shram	TPP	2000
Perfect Wedding	Props Master	Wil Love	Russel Shram	TPP	2000
Pirates of Penzance	Props Master	Jan Puffer	Cathleen Rooney	TPP	2000
Papa is All	Props Master	Carl Schurr	Cathleen Rooney	TPP	2000
Death Trap	Props Master	Will Love	James Fouchard	TPP	2000
A Tuna Christmas	Props Master	Carl Schurr	James Fouchard	TPP	2000
Murder at the Howard Johnson's	Asst. Tech. Director	Carl Schurr	James Fouchard	TPP	2001
Taking Steps	Asst. Tech. Director	Carl Schurr	Russel Shram	TPP	2001
Over the River	Asst. Tech. Director	Carl Schurr	James Fouchard	TPP	2001
See How They Run	Asst. Tech. Director	Carl Schurr	James Fouchard	TPP	2001
Dr. Cook's Garden	Asst. Tech. Director	Carl Schurr	James Fouchard	TPP	2001
Grand Night for Singing	Asst. Tech. Director	David Caldwell	James Fouchard	TPP	2001
Visiting Mr. Green	Assoc. Tech. Director	Wil Love	James Fouchard	TPP	2002
Breaking Legs	Assoc. Tech. Director	Carl Schurr	James Fouchard	TPP	2002
Harvey	Assoc. Tech. Director	Carl Schurr	James Fouchard	TPP	2002
Not Now, Darling	Assoc. Tech. Director	David Caldwell	James Fouchard	TPP	2002
Murder in the Green Meadows	Assoc. Tech. Director	Carl Schurr	James Fouchard	TPP	2002
Sander's Family Christmas	Assoc. Tech. Director	David Caldwell	Russel Shram	TPP	2002
Midsummer Night's Dream	Props Master		Jen D'Agosta	PSU	2002
Bus Stop	Asst. Tech. Director	Jim Wise	William Shroder	PSU	2003
Art	Assoc. Tech. Director	Wil Love	Paul Mills Holmes	TPP	2003
Thataway Jack	Assoc. Tech. Director	Carl Schurr	James Fouchard	TPP	2003
The Mousetrap	Assoc. Tech. Director	Carl Schurr	James Fouchard	TPP	2003
The Odd Couple	Assoc. Tech. Director	Carl Schurr	James Fouchard	TPP	2003
Remember Me?	Assoc. Tech. Director	Carl Schurr	James Fouchard	TPP	2003
My Way	Assoc. Tech. Director	David Caldwell	James Fouchard	TPP	2003
SubUrbia	Technical Director	Rob Vernon	Zack DeGeorge	PSU	2003
Ragtime	Master Electrician	Cary Libkin	John Cumiskey	PSU	2004
My Way	Master Carpenter	David Caldwell	James Fouchard	TPP	2004
Weekend Comedy	Scene Designer	Carl Schurr	~	TPP	2004
Sweet Charity	Technical Director	Spence Ford	Dan Robinson	PSU	2005
Funny Money	Scene Designer	Jeremy Skidmore	~	TPP	2005
Alegria***	Swing Technician	Luc Ouellette	Cirque du Soleil		2005
Alegria***	Head Carpenter	Luc Ouellette	Cirque du Soleil		2006
Sherlock Holmes: The Final Advent.	Technical Director	Carl Schurr	James Fouchard	TPP	2008
Lying In State	Technical Director	Wil Love	James Fouchard	TPP	2008

The Underpants	Technical Director	Carl Schurr	Paul Mills Holmes	TPP	2008
Bell, Book and Candle	Technical Director	Wil Love	Paul Mills Holmes	TPP	2008
Oatmeal and Kisses	Technical Director	Carl Schurr	James Fouchard	TPP	2008
The Taffetas	Technical Director	David Caldwell	James Fouchard	TPP	2008
Cotton Patch Gospel	Technical Director	Ray Ficca	James Fouchard	TPP	2009
You Say Tomatoes	Technical Director	Carl Schurr	James Fouchard	TPP	2009
I hate Hamlet	Technical Director	Ray Ficca	James Fouchard	TPP	2009
Queen of Bingo	Technical Director	Rowan Joseph	James Fouchard	TPP	2009
Tuesdays with Morrie	Technical Director	Carl Schurr	James Fouchard	TPP	2009
I love You, You're Perfect, Now Chan.	Technical Director	David Caldwell	James Fouchard	TPP	2009
Pheadra	Asst. Tech. Director	Christopher Mirto	Ana Milosovid	YSD	2009
Midsummer Night's Dream	Technical Director	Charlotte Brathwaite	Chien-Yu Peng	YSD	2010
Compulsion*	Asst. Props Master	Oskar Eustis	Eugene Lee	Yale Rep	2010
Sisters of Swing	Technical Director	David Caldwell	James Fouchard	TPP	2010
45 Seconds From Broadway	Technical Director	Carl Schurr	James Fouchard	TPP	2010
Complete History of America	TD/Scenic Designer	JJ Kaczynski	~	TPP	2010
The Coward and the Glory**	Technical Director	Jeff Lee	James Fouchard	TPP	2010
Unnecessary Farce	Technical Director	Jeremy Skidmore	James Fouchard	TPP	2010
Ruthless	Technical Director	Ray Ficca	James Fouchard	TPP	2010
Moonlight and Magnolias	Scenic Designer	Carl Schurr	~	TPP	2010
Eurydice	Technical Director	Devin Brain	Julia Lee	YSD	2010
Dr. Fautus Lights the Lights**	Projections Engineer	Lileana Blain-Cruz	Hannah Wesileski	YSD	2011
Romeo and Juliet	Master Electrician	Shana Cooper	Laura Eckelman	Yale Rep	2011
Good Goods*	Technical Director	Tina Landau	James Schuette	Yale Rep	
Almost Main	Set Des./Project. Des.	Jeremy Skidmore	~	TPP '	2012
American Night: Ballad of Juan Jose	Projection Programmer	Shana Cooper	Paul Lieber	Yale Rep	2012
Sunday in the Park with George	Projection Programmer	•	Nick Hussong	Yale Rep	
Noises Off	PM/Automation Des.	Mark Rhea	James Fouchard	TPP '	2013
Dames at Sea	Production Manager	Carl Schurr	James Fouchard	TPP	2013
Sunshine Boys	Production Manager	John Putch	James Fouchard	TPP	2013
A Closer Walk With Patsy Cline	Production Manager	David Caldwell	James Fouchard	TPP	2013
Boeing Boeing	Production Manager	Carl Schurr	Paul Mills Holmes	TPP	2013
Barnum	PM/Rigging Designer	JJ Kaczynski	James Fouchard	TPP	2013
Leader of the Pack	Production Manager	George Grant	James Fouchard	TPP	2013
Spring Awakening	Automation Designer	Susanna Rinehart	Mary Sader	VT	2014
Steel Magnolias	Production Manager	Skip Greer	James Fouchard	TPP	2014
Ring of Fire	PM/Projections Eng.	Jason Edwards	James Fouchard	TPP	2014
The Foreigner	PM/Automation Des.	Ken Jenkins	James Fouchard	TPP	2014
Godspell	PM/Set Designer	Rowan Joseph	~	TPP	2014
A Christmas Carol	Technical Director	Rowan Joseph	James Fouchard	TPP	2014
Three Feathers**	Projections Engineer	Beth Greenberg	Joan Grossman	VT	2014
The Nerd	Production Manager	David Caldwell	James Fouchard	TPP	2015
Shenandoah	PM/Scenic Designer	Rowan Joseph	~	TPP	2015
The Memoirs of Abraham Lincoln	Production Manager	Grandville Van Dusen	Joey Sauthouff	TPP	2015
The Trojan Women	Projections Engineer	Robert McGrath	Laurie Olinder	VT	2015
The Divine: A Play for Sarah Bernh.	Technical Director	Ed Herendeen	Randolf Ward	VT	2016
Mr. Marmalade	Automation Designer	Greg Justice	Nia Perez-Vera	VT	2017
Mr. Marmalade	Projections Engineer	Greg Justice		VT	2017
Distracted	Technical Director	Susanna Rinehart	Rhi Sanders	VT	2017
Distracted	Projections Engineer	Susanna Rinehart		VT	2017
Nosferatu	Technical Director	Ping Chong	Randy Ward	VT	2017
Fun Home	Technical Director	Susanna Rinehart	Nia Perez-Vera	VT	2018
Decision Height	Technical Director	Patty Raun	Randy Ward	VT	2018
The Foreigner	Technical Director	Susanna Rinehart	Diksha Pilania	VT	2019
How I Learned to Drive	Set/Projection Designer		~	VT	2019
The Wolves	Technical Director	Patty Raun	Diksha Pilania	VT	2020
Palleas et Mélisande	PM/TD/Proj. Engineer	Ariana Wyatt	Tláloc López-Water		2021
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Metamorphosis	Technical Director	Sam Osheroff	Mia Irwin	PSU	2022
Cabaret	Technical Director	Chaz Wolcott	Andre Brandao de Cast	tro PSU	2022
Hit the Wall	Technical Director	Rob Schneider	Anna Lustiq	PSU	2023
NP & the Great Comet of 1812	Technical Director	Christine O'Grady	Andre Brandao de Cast	tro PSU	2023
Oh Happy Day*	Automation Designer	Stevie Walker-Web	Luciana Stecconi	Balt.C.S.	2024
Sweeney Todd	Technical Director	Zack Steele	Aliva Cross	PSU	2024
How to Succeed in Business	Technical Director	Chris Campbell	Paula Caulderon	PSU	2025

<sup>\*</sup>World Premier

<sup>\*\*</sup>New Work

<sup>\*\*\*</sup>Touring