



Ohio

Arts and Communication

CAREER FIELD TECHNICAL CONTENT STANDARDS

2014

CAREER.TECH.EDUCATION.OHIO.GOV

Table of Contents

Foreword.....	ii
Acknowledgements.....	iii
Philosophy and Principles for Implementation	iv
Ohio Career Field Initiative	iv
Career Pathways	v
Structure and Format.....	vi
Development of Arts and Communication Career Field Technical Content Standards	vii
Research and Development.....	vii
Futuring Panel.....	viii
Validation Panel	viii
Postsecondary Alignment	viii
Futuring Panel Contributors	ix
Development Contributors.....	xi
Validation Panel Contributors.....	xv
Career Pathways Definitions.....	xviii
Media Arts.....	xviii
Performing Arts.....	xviii
Visual Design	xix
Strand/Outcome Pathway Chart.....	xx
Strands 1-7	1
Strand 1. Business Operations/21 st Century Skills	2
Strand 2. Design	13
Strand 3. Written Content Creation.....	18
Strand 4. Audio, Video and Photo Imaging	22
Strand 5. Print Production Process	29
Strand 6. Digital Design	37
Strand 7. Performance	42

Foreword

The Career Field Technical Content Standards serve as the curricular framework for Ohio’s career-technical education pathway programs as outlined in Ohio Administrative Code 3301-61-03 (Criteria for Secondary Workforce Development Programs).

Career Field Technical Content Standards outline the knowledge and skills needed for success in careers across multiple pathways. Validated by Ohio business and industry representatives in conjunction with Ohio educators, these standards form the basis for developing educational programming in Ohio secondary schools. The standards also serve as the framework for developing strong career pathways that connect secondary education with postsecondary education systems and the workplace.

This version of Career Field Technical Content Standards is intended to support the ongoing evolution of career technical education pathway programs. The standards tend to be somewhat broader than previous versions and are not repeated for individual pathways or occupational areas. The broader and non-duplicated statements are intended to capture the knowledge and skills that can be applied across any number of occupations in a pathway rather than focusing on the requirement of a single occupation. After all, the intent of a pathway program is to prepare a student for a range of educational and career opportunities following high school.

Pathway programs prepare students to combine broad knowledge, insight and understanding of business processes, academic attainment and workplace readiness with depth of knowledge and expertise in a technical area. Knowing that many careers will require some level of postsecondary education, the content standards also delineate the knowledge and skills necessary to seamlessly transition to postsecondary educational programs.

This document seeks to provide the basis for educational programming that will provide the employee with fundamental skill-sets that employers demand. This ensures that Ohio’s workforce of tomorrow is competitive in a global environment. An environment that requires knowledge and skills can be applied in a broader context, aimed at innovation to support new products and services in an ever-changing economy.

In addition to the extensive engagement of secondary and postsecondary educators and business/industry professionals, development of these standards represents a collaborative effort of the following professional partners: the Ohio Department of Education’s Office of Career-Technical Education; the Ohio Board of Regents Secondary Career-Technical Alignment Initiative; and CETE, known as the Center on Education and Training for Employment, at The Ohio State University.

Isaac Kershaw, PhD, Assistant Director
Office of Career-Technical Education
Ohio Department of Education

Acknowledgements

A number of individuals contributed their time and expertise to this development. Special thanks go to all the business representatives and educators named in this document.

Further acknowledgement is due to:

- Steve Gratz, Director, Office of Career-Technical Education, Ohio Department of Education;
- Isaac Kershaw, Assistant Director, Office of Career-Technical Education, Ohio Department of Education;
- Dwight Anstaett, Assistant Director, Office of Career-Technical Education, Ohio Department of Education;
- Cyndi Brill, Career-Technical Education (CTE) Academic Content Expert, Educational Consultant, Office of Career-Technical Education, Ohio Department of Education;
- Pat Huston, Consultant for Arts and Communication, Office of Career-Technical Education, Ohio Department of Education;
- Paula Compton, Associate Vice Chancellor, Ohio Articulation and Transfer Network, Ohio Board of Regents;
- Jamilah Jones Tucker, Director for Career-Technical Initiatives, Ohio Articulation and Transfer Network, Ohio Board of Regents;
- Anne Skuce, Senior Associate Director, Ohio Articulation and Transfer Network, Ohio Board of Regents;
- Pete Ross, Consultant, Ohio Articulation and Transfer Network, Ohio Board of Regents;
- Wendi Howell, Project Manager, CETE, The Ohio State University;
- Alicia Willis, Program Coordinator - Editorial Projects, CETE, The Ohio State University; and
- Rene Fernandez, Program Coordinator - Editorial Projects, CETE, The Ohio State University.

Those listed above provided vision and implementation support for the Arts and Communication Career Field Technical Content Standards and Ohio's Arts and Communication educational programs.

Philosophy and Principles for Implementation

Ohio Career Field Initiative

The overarching framework for Ohio career-technical education is outlined in the Ohio Revised Code and subsequent administrative rules, which specify career-technical programming based on 16 career fields. To view the full text of Administrative Rule 3301-61-03 (Criteria for Secondary Workforce Development Programs), go to: <http://education.ohio.gov/Topics/Career-Tech/Career-Development-OCIS/CTE-Administrative-Rules-Update>. These 16 fields provide the framework for an Ohio career field initiative that seeks to foster the educational shift necessary to respond to the needs of a rapidly changing global environment.

A career field is a “group of occupations and broad industries based on common characteristics” (see www.careertech.org). Career fields are the basis for developing both broad and specialized technical content standards that serve as a framework for curriculum, instruction, assessment and program design, addressing the needs of an entire industry and business sector. Ohio’s 16 career fields align with national efforts to broaden career-technical education, integrate career-technical with academic study and reflect the workforce needs of today and tomorrow. For today’s students to be adequately prepared for tomorrow’s workforce, they must have an education that:

- **Incorporates a broad, long-term conception of work in combination with the depth of specialization skills;**
Employees need a comprehensive understanding beyond a single occupational area. Career-technical programming needs to be provided in a larger context, so students can generalize learning, make connections between education and work and adapt to changes in their careers. Workplace knowledge and skills are needed to prepare employees for collaborating and problem solving while contributing to the broader business process.
- **Emphasizes the acquisition of strong academic knowledge and skills; and**
Academic skills provide the foundation for career success. The integration of academic content standards with career field technical content standards helps to contextualize learning for students, making English language arts, mathematics, social studies and science relevant to students as a means to an important end—success at work and in life.
- **Facilitates high-school-to-postsecondary transitions.**
A lifetime of change means a lifetime of learning, including postsecondary education. Students need knowledge and skills for success in a variety of postsecondary options, including apprenticeships, industry credentialing through adult education, two- and four-year college degree programs and graduate school.

Career Pathways

A key component of the Ohio Career Field Initiative is a career pathway, which is a coherent, articulated sequence of rigorous academic and career-technical coursework commencing in the ninth grade and leading to an associate degree, baccalaureate degree and beyond—an industry-recognized certificate and/or licensure. Pathways facilitate a seamless transition from high school to postsecondary education, including apprenticeships, adult education, two- and four-year colleges and graduate school, and from postsecondary education to the workplace. The career pathway is developed, implemented and maintained in partnership among secondary and postsecondary education, business and employers. Career pathways are available to all students, including adult learners and lead to rewarding careers.

To effectively facilitate the transition from secondary to postsecondary education and a career, high school career pathways should encompass:

1. Challenging technical coursework in a chosen career field based on career field technical content standards;
2. Rigorous academics that meet Ohio’s academic content standards and grade-level expectations;
3. Electives that relate to career objectives;
4. Instructional enhancements such as experiential and authentic learning opportunities (e.g., work-based learning, mentorships, internships) and career-technical student organization participation;
5. Opportunities (when appropriate) for program and student certification and licensure;
6. Preparation for transition to further study that includes college readiness and opportunities to earn college credit while in high school;
7. Preparation for transition to employment with advancement opportunities;
8. Performance targets that include high school academic and technical testing/exit and postsecondary entry/placement requirements;
9. Various sectors within an industry or encompass a function that crosses industry sectors;
10. The scope of opportunities in the related industry and available college programs;
11. Opportunities to prepare for a range of careers, including
 - a. multiple employment opportunities after high school and
 - b. opportunities for students to enter and succeed in postsecondary and continuing education programs;
12. Transferable skills required for employment in the range of occupations aligned to the pathway; and
13. Opportunities to learn skills across the pathway as well as in specialized areas.

For additional information on the Career Field Initiative, including Ohio Career Field Technical Content Standards and Career Pathways, go to <http://education.ohio.gov/Topics/Career-Tech/Career-Fields>.

Structure and Format

The Career Field Technical Content Standards document is composed of a series of strands comprised of outcomes that each contain a set of competencies.

- A strand is a large content area under which multiple outcomes are organized, regardless of the pathway. It includes a title and a concise description with statements that capture multiple, broad areas of learner knowledge and skills expected across all outcomes in the strand. There are approximately six strands of content per career field. Strand 1, Business Operations/21st Century Skills (employability skills, leadership and communications, business ethics and law, knowledge management and information technology, global environment, business literacy, entrepreneurship/entrepreneurs, operations management, financial management, sales and marketing and principles of business economics), is the same for all career-technical education career fields.
- An outcome is an overarching statement that summarizes the knowledge and skills described in a set of individual competencies to be learned by the end of the 12th grade. There are usually 5–15 outcomes within a strand, depending on the breadth of content to be addressed.
- A competency is a specific statement of essential knowledge or skill to be learned in the pathway program. There are usually 5–12 competencies under an outcome.

Each set of outcomes and competencies is included in one or more pathways in the career field. Outcomes and competencies form the basis for developing secondary courses, programs, instruction and assessment, facilitating transition from one educational level to the next and to the workplace. This supports career readiness and long-term career success by:

- Providing the basis for effective collaboration, teamwork and communication across pathways;
- Laying the groundwork for successful transfer of knowledge and skills across pathways, thereby facilitating horizontal and vertical career success; and
- Equipping students and workers with the skills needed to transition to new and emerging careers throughout a working lifetime.

All outcomes and competencies in the Career Field Technical Content Standards have been verified as essential by business and labor representatives within the pathway or pathways specified.

These essential outcomes and competencies specify industry-based knowledge or hands-on skills that CTE students need by the end of the 12th grade to be successful in their selected career pathway and on-going learning (such as college, apprenticeships and military opportunities).

Development of Arts and Communication Career Field Technical Content Standards

The process for the development of the Arts and Communication Career Field Technical Content Standards began in April 2013 and culminated in March 2014. Over the course of 2013-2014, numerous business and industry representatives as well as secondary and postsecondary educators from across the state of Ohio took part in the formal development process. The following summarizes the various stages of the development process.

Research and Development

The involvement of subject matter experts, including educators, was critical to the completion of the draft revision of the document. Development was also informed by consulting the following sources of information:

- National Association of State Directors of Career Technical Education Consortium (NASDCTEC); Common Career Technical Core (CCTC) standards and Programs of Study;
- National Standards for Visual Art;
- National Coalition for Core Arts Standards, Draft 2014 National Arts Standards;
- Consortium of National Arts Education Associations, Grades 9-12 Arts Standards;
- State of New Jersey, Department of Education, Visual and Performing Arts 2009 Standards;
- State of Washington, Office of Superintendent of Public Instruction, Arts K-12 Learning Standards;
- State education offices for Georgia, Iowa, Louisiana, New Jersey, New Mexico, Maine, Michigan, Oregon, Virginia and Washington State;
- Public Schools of North Carolina, Essential Standards, Visual Arts;
- New York City Department of Education, Blueprints for the Arts;
- Tennessee Department of Education, Fine Arts Curriculum Standards;
- American Alliance for Theatre & Education, 1994 National Standards for Theatre Education;
- Industry-based certifications/standards;
 - Adobe Photoshop, Dreamweaver, Illustrator, Flash, InDesign;
- Textbooks;
 - Cengage Learning: Web Design, Graphic Design, Print Layout, Print Production, Media, Moving Images, Multimedia, Journalism, Technical Writing;
 - McGraw-Hill: Theatre, Acting, Dance, Jazz, Harmony, Speech;
- SkillsUSA;
- Partnership for 21st Century Skills;
- Career-Technical Transfer Assurance Guides (CTAGs);
- University System of Ohio Academic Program Guide; and
- Ohio Industry Employment Projections Report, 2008-18.

Futuring Panel

On April 17, 2013, the Arts and Communication futuring panel brought together key business and industry representatives from across the state to advise the Ohio Department of Education on trends impacting the Arts and Communication career field. The participants were asked to share their perceptions on changes in the workplace, employment trends, changes in technical skill requirements, needed workplace readiness skills and available industry-recognized standards and credentials. This feedback was used to develop and streamline the standards document into what is most demanded by the labor market.

Validation Panel

On December 11, 2013, a diverse group of Ohio business and industry representatives participated in panels to validate and rate the importance of the work-related competencies in the draft standards document. Drawn from various sectors and regions of the state, the panels identified what employees should know and be able to do in the Arts and Communication pathways. Secondary and postsecondary education representatives participated on the panels to gain an understanding of the standards development process as well as to provide their perspective to the business representatives, when needed.

Postsecondary Alignment

The goal of the Secondary Career-Technical Alignment Initiative (SCTAI) was to develop new statewide Career-Technical Assurance Guides (CTAGs) for secondary career-technical institutions using the combined process of the Ohio Board of Regents' CTAG development process with the Ohio Department of Education's Career Field Technical Content Standards development process. The result of this collaboration was a tighter alignment between secondary career-technical and postsecondary content and the development of pathways that encourage college-going and increase statewide postsecondary options for career technical students. For more information on CTAGs and opportunities for statewide postsecondary articulated transfer credit, visit <https://student-transfer.ohiohighered.org>.

Futuring Panel Contributors

April 17, 2013

Media Arts

Todd Allman

Recording Engineer
Signal 9 Studio
McArthur, OH

Forrest Baldwin

Media Specialist
Envision Studios
Canal Winchester, OH

Candace Bowen

Director - Center for Scholastic Journalism
Kent State University
Kent, OH

Dennis Evans

Public Information Officer
Ohio Department of Education (ODE)
Columbus, OH

Ryan Gardner

Gardner Productions
Columbus, OH

Brian Kellett

Photographer
Groveport, OH

Elizabeth Sammons

Assistant with Rehabilitation Projects
Ohio Rehabilitation Services Commission
Columbus, OH

Sam Torre

Director / Camera
Columbus, OH

Seth Whitehill

Media Specialist
All in One Video
Canal Winchester, OH

Performing Arts

Heather Burley

Education Director
Contemporary American Theater Company
(CATCO)
Columbus, OH

Alan Kleesattel

Lighting Designer/Technician
Cincinnati, OH

Shae Pridemore

Gymnastics Coach
Kids First Sports Center
Cincinnati, OH

Greg Procaccino

Equity Actor
Cincinnati, OH

Cheri Mitchell

Executive Director
BalletMet
Columbus, OH

Visual Design

Michael Balas

Chief Executive Officer
VitreoQR, LLC
Cleveland, OH

Jessica Barry

President and Creative Director
School of Advertising Art
Kettering, OH

Scott Deutsch

Manager, Communications and Special
Programs
National Center for Defense Manufacturing
and Machining
Blairsville, PA

Larry Hamill

Larry Hamill Photography
Columbus, OH

Vickie Hammer

The Printed Image
Columbus, OH

Gayle Holton

Gayle Holton Design
Dublin, OH

Roy Waterhouse

President
Hopkins Printing
Columbus, OH

Education Leaders

Andy Bennekamper

Instructor
Cleveland Heights High School
Cleveland Heights, OH

Steve Black

Instructor
Fort Hayes Career Center
Columbus, OH

Bill Dichtl

Instructor
Pioneer Career and Technology Center
Shelby, OH

Jon Lundquist

Associate Professor/Coordinator
Columbus State Community College
Columbus, OH

Jim Slowiak

Professor of Theatre
University of Akron
Akron, OH

Frank Wiewandt

Instructor
Medina County Career Center
Medina, OH

Development Contributors

Media Arts

Andy Bennekamper

Instructor
Cleveland Heights High School
Cleveland Heights, OH

Maria Bleahu

Professor
Stark State College
North Canton, OH

Kay Dreslinski

Instructor
Akron Public Schools
Akron, OH

Scott Leo

Instructor
Kettering Fairmont High School
Kettering, OH

Jacki Power

Instructor
Canton City Schools
Canton, OH

Steve Black

Instructor
Fort Hayes Career Center
Columbus, OH

Mike Cordonnier

Instructor
Centerville City Schools
Centerville, OH

Tricia Rapoch

Instructor
Centerville High School
Centerville, OH

Kyle Schwartz

Instructor
Alliance City Schools
Alliance, OH

James Toth

Instructor
Tri-Rivers Career Center
Marion, OH

Frank Wiewandt

Instructor
Medina County Career Center
Medina, OH

Lisa Zilba

Instructor
Toledo Public Schools
Toledo, OH

Performing Arts

Rick DeWitt

Instructor
Lorain High School
Lorain, OH

Elaine Eckstein

Lecturer/Coordinator of Theater Arts
University of Cincinnati
Cincinnati, OH

Joy Fowler

Instructor
Cincinnati Public Schools
Cincinnati, OH

Tom Fulton

Instructor
Chagrin Falls Performing Arts Academy
Chagrin Falls, OH

Anne Kurtzman

Instructor
Pioneer Career and Technology Center
Shelby, OH

Mary Lenning

Instructor
Cincinnati Public Schools
Cincinnati, OH

Katherine Magistrelli

Instructor
School for Creative and Performing Arts
Cincinnati, OH

Jeffrey McCargish

Instructor
Fort Hayes Career Center
Columbus, OH

Ben Needham

Director of Technical Theatre and Design
Academy for the Performing Arts
Chagrin Falls High School
Chagrin Falls, OH

Jeffrey New

Instructor
School for Creative and Performing Arts
Cincinnati, OH

Coleen Pence

Instructor
Butler Tech School of the Arts
Oxford, OH

Jim Slowiak

Professor of Theatre
University of Akron
Akron, OH

Caitlin Van Neil

Instructor
Chagrin Falls Performing Arts Academy
Chagrin Falls, OH

Jay Welenc

Instructor
Toledo School for the Arts
Toledo, OH

Visual Design

Anna Ackers

Instructor
Fort Hayes Career Center
Columbus, OH

Steve Amlin

Instructor
Mad River Local Schools
Riverside, OH

Brian Anderson

Instructor
Whitmer Career and Technology Center
Toledo, OH

Troy Baker

Instructor
Miami Valley Career Technology Center
Clayton, OH

Chris Bergert

Instructor
Canton South High School
Canton, OH

Jim Buchholz

Instructor
Four County Career Center
Archibald, OH

Dale Busdieker

Instructor
Sylvania Schools
Sylvania, OH

Linda Cabaluna

Instructor
Springfield-Clark Career Technical Center
Springfield, OH

Tom Carrig

Instructor
Ohio Hi-Point Career Center
Bellefontaine, OH

Bill Delgado

Instructor
Cuyahoga Valley Career Center
Brecksville, OH

Bill Dichtl

Instructor
Pioneer Career and Technology Center
Shelby, OH

Kathy Duraney

Instructor
Choffin Career and Technical Center
Youngstown, OH

Lynnmarie Fye

Instructor
Hope Valley School
Mansfield, OH

Melissa Hackett

Instructor
Mahoning County Career and Technical
Center
Canfield, OH

Lisa Hetzer

Instructor
Miami Valley Career Technology Center
Clayton, OH

Byron Jones

Instructor
Sylvania Southview High School
Sylvania, OH

Bill Koch

Instructor
Mid-East Career and Technology Center
Senecaville, OH

Steve Lark

Instructor
Woodward High School
Toledo, OH

Jon Lundquist

Associate Professor/Coordinator
Columbus State Community College
Columbus, OH

Jeannene Mathis-Bertosa

Instructor
Glen Oak High School
Canton, OH

Melissa Munro

Instructor
Cuyahoga Valley Career Center
Brecksville, OH

Adam Schlosser

Instructor
Live Oaks Campus
Great Oaks Career Campuses
Milford, OH

Elizabeth Sillis

Instructor
Scarlet Oaks Campus
Great Oaks Career Campuses
Cincinnati, OH

Deborah Smith

Instructor
Tolles Career and Technical Center
Plain City, OH

Barry Sponsler

Instructor
Ashland County-West Holmes Career Center
Ashland, OH

Kim Weber

Instructor
Parma City Schools
Parma, OH

Validation Panel Contributors

January 23 and December 11, 2013

Media Arts

Jim Andracki

Partner
Midwest Photo Exchange
Columbus, OH

Carol DelGrosso

Creative Director
Milenthal-DelGrosso, LLC
Columbus, OH

Jessimi Jones

Teacher and School Programs
Columbus Museum of Art
Columbus, OH

Gregory Kaple

Chairman and Strategic Director
Nvision Performance Solutions
Columbus, OH

Brian Kellett

Creative Director
Rockmill Brewery
Canal Winchester, OH

Nicole Kraft

Multimedia Journalism Professor
The Ohio State University
Columbus, OH

Elizabeth Sammons

Assistant with Rehabilitation Projects
Opportunities for Ohioans with Disabilities
Columbus, OH

Sharon Smigielski

Public Information Officer
Ohio Department of Transportation
Lebanon, OH

Performing Arts

Stacie Boord

Director of Community Relations/Education
Shadowbox Live
Columbus, OH

Alfred Dove

Director of Education
The King Arts Complex
Columbus, OH

Ambre Emory-Maier

Director of Education
BalletMet Columbus
Columbus, OH

Daren Fuster

Personnel Manager
Columbus Symphony
Columbus, OH

Mark Krausz

President
Falcon Paymasters
Columbus, OH

Rob Kuhn

Technical Director
Short North Stage
Columbus, OH

Andy Millat

Principal Trombone
Columbus Symphony Orchestra
Columbus, OH

Betsy Sturdevant

Principal Bassoon
Columbus Symphony Orchestra
Columbus, OH

Carol Mosaic

President/Director
CAM Talent Agency
Columbus, OH

Visual Design**Jessica Barry**

President and Creative Director
School of Advertising Art
Kettering, OH

Vesco Mallette

Director of Technology
IDL Worldwide
Pittsburgh, PA

Bob Dagostino

Commercial Printing and Quality Assurance
Manager
The Plain Dealer
Cleveland, OH

Greg Tuller

Account Representative
Hopkins Printing
Columbus, OH

Larry Hamill

Larry Hamill Photography
Columbus, OH

Education Leaders**Andy Bennekamper**

Instructor
Cleveland Heights High School
Cleveland Heights, OH

Byron Jones

Instructor
Sylvania Southview High School
Sylvania, OH

Maria Bleahu

Instructor
Stark State College
North Canton, OH

Jon Lundquist

Associate Professor/Coordinator
Columbus State Community College
Columbus, OH

Thomas Dulaney

Professor
Eastern Gateway Community College
Steubenville, OH

Jeffrey McCargish

Instructor
Fort Hayes Career Center
Columbus, OH

Dave Obney

Instructor
Tallmadge High School
Tallmadge, OH

Adam Schlosser

Instructor
Live Oaks Campus
Great Oaks Career Campuses
Milford, OH

Jim Slowiak

Professor of Theatre
University of Akron
Akron, OH

Gene Strickland

Coordinator of Photography
Columbus State Community College
Columbus, OH

Frank Wiewandt

Instructor
Medina County Career Center
Medina, OH

Career Pathways Definitions

The Arts and Communication Career Field prepares students for careers in Media Arts, Performing Arts and Visual Design.

Media Arts

Media Arts program areas prepare students for careers in various fields of communication such as journalism and commercial photography and film. Students gain the necessary technical and academic skills to develop and distribute mass media content.

Careers for which this pathway prepares students include:

Technical Writer/Editor	Videographer
Announcer	Audio Engineer
Reporter/Journalist	Content Strategist
Photographer	

Postsecondary majors for which this pathway prepares students include:

Advertising	Writing
Communication	Film/Cinema/Video/Photographic Studies
Journalism	Public Relations/Image Management
Photography	Social Media/Emerging Technologies

Performing Arts

Performing Arts program areas prepare students for careers in theater, music and dance. Students gain the necessary technical and academic skills to support production and delivery of an artistic performance.

Careers for which this pathway prepares students include:

Playwright	Producer
Choreographer	Promoter
Stagecraft Designer	Business Manager
Technician	

Postsecondary majors for which this pathway prepares students include:

Acting	Choreography
Playwriting and Screenwriting	Music Technology
Technical Theatre	Business of Theatre
Dramatic/Theatre Arts and Stagecraft	

Visual Design

Visual Design program areas prepare students for careers in graphic, Web/emerging technology and print production. Students gain the necessary technical and academic skills to create online and tactile designs and produce two-dimensional and three-dimensional products.

Careers for which this pathway prepares students include:

Graphic Designer	Webmaster
Industrial Designer	Technical Illustrator
Multimedia Artist/Animator	Print Producer

Postsecondary majors for which this pathway prepares students include:

Visual Communications	Commercial Art
Graphic Design	Interactive Media Design
Animation	Advertising
Industrial and Product Design	Prepress and Digital Imaging Design

Strand/Outcome Pathway Chart

An "X" indicates that the pathway applies to the outcome.

Strand/Outcome	Pathway		
	Media Arts	Performing Arts	Visual Design
Strand 1: Business Operations/21st Century Skills page 2			
Outcome 1.1: Employability Skills	X	X	X
Outcome 1.2: Leadership and Communications	X	X	X
Outcome 1.3: Business Ethics and Law	X	X	X
Outcome 1.4: Knowledge Management and Information Technology	X	X	X
Outcome 1.5: Global Environment	X	X	X
Outcome 1.6: Business Literacy	X	X	X
Outcome 1.7: Entrepreneurship/Entrepreneurs	X	X	X
Outcome 1.8: Operations Management	X	X	X
Outcome 1.9: Financial Management	X	X	X
Outcome 1.10: Sales and Marketing	X	X	X
Outcome 1.11: Principles of Business Economics	X	X	X
Strand 2: Design page 13			
Outcome 2.1: Art Elements and Design Principles	X	X	X
Outcome 2.2: Color Theory	X	X	X
Outcome 2.3: Art Forms			X
Outcome 2.4: Visual Layouts	X		X
Outcome 2.5: Typography	X		X
Strand 3: Written Content Creation page 18			
Outcome 3.1: Career-based Writing	X	X	X
Outcome 3.2: Entertainment-based Writing	X	X	
Outcome 3.3: Fact-based Writing	X	X	
Outcome 3.4: Market-based Writing	X	X	X
Strand 4: Audio, Video and Photo Imaging page 22			
Outcome 4.1: Science of Sound	X	X	
Outcome 4.2: Audio Capturing	X	X	
Outcome 4.3: Audio Operations	X	X	X

Strand/Outcome	Pathway		
	Media Arts	Performing Arts	Visual Design
Outcome 4.4: Lighting	X	X	X
Outcome 4.5: Photography	X		X
Outcome 4.6: Videography	X	X	X
Outcome 4.7: Audio/Video Editing	X	X	X
Strand 5: Print Production Process page 29			
Outcome 5.1: File Preflight	X		X
Outcome 5.2: File Output			X
Outcome 5.3: Offset Image Control Systems			X
Outcome 5.4: Printed Images			X
Outcome 5.5: Digital Print Methods			X
Outcome 5.6: Digital Production Printing			X
Outcome 5.7: Screen Printing and Embroidery			X
Outcome 5.8: Binding and Finishing			X
Strand 6: Digital Design page 37			
Outcome 6.1: Content Management	X	X	X
Outcome 6.2: Scanning	X		X
Outcome 6.3: Graphics	X		X
Outcome 6.4: Animation	X	X	X
Outcome 6.5: Web Page Design	X		X
Strand 7: Performance page 42			
Outcome 7.1: Interrelationships		X	
Outcome 7.2: Genres	X	X	
Outcome 7.3: Basic Movement		X	
Outcome 7.4: Space, Time and Energy		X	
Outcome 7.5: Choreography		X	
Outcome 7.6: Music Elements	X	X	
Outcome 7.7: Musical Symbols	X	X	
Outcome 7.8: Musical Performance	X	X	
Outcome 7.9: Musical Composition	X	X	
Outcome 7.10: Acting Process		X	
Outcome 7.11: Production Management	X	X	
Outcome 7.12: Production Design	X	X	

Strand/Outcome	Pathway		
	Media Arts	Performing Arts	Visual Design
Outcome 7.13: Costuming		X	
Outcome 7.14: Performance Demands		X	
Outcome 7.15: Rehearsal and Audition	X	X	
Total Outcomes by Pathway:	40	40	36
Total Outcomes:	55		

ARTS AND COMMUNICATION

CAREER FIELD TECHNICAL
CONTENT STANDARDS

STRANDS 1-7

Strand 1. Business Operations/21st Century Skills

Learners apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.1. Employability Skills

Develop career awareness and employability skills (e.g., face-to-face, online) needed for gaining and maintaining employment in diverse business settings.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 1.1.1. Identify the knowledge, skills and abilities necessary to succeed in careers.
- 1.1.2. Identify the scope of career opportunities and the requirements for education, training, certification, licensure and experience (e.g., interdependence of technical and artistic elements).
- 1.1.3. Develop a career plan that reflects career interests, pathways and secondary and postsecondary options.
- 1.1.4. Describe the role and function of professional organizations, industry associations and organized labor and use networking techniques to develop and maintain professional relationships.
- 1.1.5. Develop strategies for self-promotion in the hiring process (e.g., filling out job applications, resumé writing, interviewing skills, portfolio development).
- 1.1.6. Explain the importance of work ethic, accountability and responsibility and demonstrate associated behaviors in fulfilling personal, community and workplace roles.
- 1.1.7. Apply problem-solving and critical-thinking skills to work-related issues when making decisions and formulating solutions.
- 1.1.8. Identify the correlation between emotions, behavior and appearance and manage those to establish and maintain professionalism.
- 1.1.9. Give and receive constructive feedback to improve work habits.
- 1.1.10. Adapt personal coping skills to adjust to taxing workplace demands.
- 1.1.11. Recognize different cultural beliefs and practices in the workplace and demonstrate respect for them.
- 1.1.12. Identify healthy lifestyles that reduce the risk of chronic disease, unsafe habits and abusive behavior.

Strand 1. Business Operations/21st Century Skills

Learners apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.2. Leadership and Communications

Process, maintain, evaluate and disseminate information in a business. Develop leadership and team building to promote collaboration.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 1.2.1. Extract relevant, valid information from materials and cite sources of information (e.g., First Amendment, Freedom of Information Act).
- 1.2.2. Deliver formal and informal presentations.
- 1.2.3. Identify and use verbal, nonverbal and active listening skills to communicate effectively.
- 1.2.4. Use negotiation and conflict-resolution skills to reach solutions.
- 1.2.5. Communicate information (e.g., directions, ideas, vision, workplace expectations) for an intended audience and purpose.
- 1.2.6. Use proper grammar and expression in all aspects of communication.
- 1.2.7. Use problem-solving and consensus-building techniques to draw conclusions and determine next steps.
- 1.2.8. Identify the strengths, weaknesses and characteristics of leadership styles that influence internal and external workplace relationships.
- 1.2.9. Identify advantages and disadvantages involving digital and/or electronic communications (e.g., common content for large audience, control of tone, speed, cost, lack of non-verbal cues, potential for forwarding information, longevity).
- 1.2.10. Use interpersonal skills to provide group leadership, promote collaboration and work in a team (e.g., writer, reporter, designer, director, actor, conductor, technical crew).
- 1.2.11. Write professional correspondence, documents, job applications and resumés.
- 1.2.12. Use technical writing skills to complete forms and create reports.
- 1.2.13. Identify stakeholders and solicit their opinions.
- 1.2.14. Use motivational strategies to accomplish goals.

Strand 1. Business Operations/21st Century Skills

Learners apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.3. Business Ethics and Law

Analyze how professional, ethical and legal behavior contributes to continuous improvement in organizational performance and regulatory compliance.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 1.3.1. Analyze how regulatory compliance affects business operations and organizational performance.
- 1.3.2. Follow protocols and practices necessary to maintain a clean, safe and healthy work environment.
- 1.3.3. Use ethical character traits consistent with workplace standards (e.g., honesty, personal integrity, compassion, justice).
- 1.3.4. Identify how federal and state consumer protection laws affect products and services.
- 1.3.5. Access and implement safety compliance measures (e.g., quality assurance information, safety data sheets [SDSs], product safety data sheets [PSDSs], United States Environmental Protection Agency [EPA], United States Occupational Safety and Health Administration [OSHA]) that contribute to the continuous improvement of the organization.
- 1.3.6. Identify deceptive practices (e.g., bait and switch, identity theft, unlawful door-to-door sales, deceptive service estimates, fraudulent misrepresentations) and their overall impact on organizational performance.
- 1.3.7. Identify the labor laws that affect employment and the consequences of noncompliance for both employee and employer (e.g., harassment, labor, employment, employment interview, testing, minor labor laws, Americans with Disabilities Act, Fair Labor Standards Acts, Equal Employment Opportunity Commission [EEOC]).
- 1.3.8. Verify compliance with computer and intellectual property laws and regulations.
- 1.3.9. Identify potential conflicts of interest (e.g., personal gain, project bidding) between personal, organizational and professional ethical standards.

Strand 1. Business Operations/21st Century Skills

Learners apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.4. Knowledge Management and Information Technology

Demonstrate current and emerging strategies and technologies used to collect, analyze, record and share information in business operations.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 1.4.1. Use office equipment to communicate (e.g., phone, radio equipment, fax machine, scanner, public address systems).
- 1.4.2. Select and use software applications to locate, record, analyze and present information (e.g., word processing, e-mail, spreadsheet, databases, presentation, Internet search engines).
- 1.4.3. Verify compliance with security rules, regulations and codes (e.g., property, privacy, access, accuracy issues, client and patient record confidentiality) pertaining to technology specific to the industry pathway.
- 1.4.4. Use system hardware to support software applications (e.g., innovations in imaging and screen printing).
- 1.4.5. Use information technology tools to maintain, secure and monitor business records.
- 1.4.6. Use an electronic database to access and create business and technical information.
- 1.4.7. Use personal information management and productivity applications to optimize assigned tasks (e.g., lists, calendars, address books).
- 1.4.8. Use electronic media (e.g., social media) to communicate and follow network etiquette guidelines.

Strand 1. Business Operations/21st Century Skills

Learners apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.5. Global Environment

Evaluate how beliefs, values, attitudes and behaviors influence organizational strategies and goals.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 1.5.1. Describe how cultural understanding, cultural intelligence skills and continual awareness are interdependent.
- 1.5.2. Describe how cultural intelligence skills influence the overall success and survival of an organization.
- 1.5.3. Use cultural intelligence to interact with individuals from diverse cultural settings.
- 1.5.4. Recognize barriers in cross-cultural relationships and implement behavioral adjustments.
- 1.5.5. Recognize the ways in which bias and discrimination may influence productivity and profitability.
- 1.5.6. Analyze work tasks for understanding and interpretation from a different cultural perspective.
- 1.5.7. Use intercultural communication skills (e.g., code switching) to exchange ideas and create meaning.
- 1.5.8. Identify how multicultural teaming and globalization can foster development of new and improved products and services (e.g., digital) and recognition of new opportunities.

Strand 1. Business Operations/21st Century Skills

Learners apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.6. Business Literacy

Develop foundational skills and knowledge in entrepreneurship, financial literacy and business operations.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 1.6.1. Identify business opportunities.
- 1.6.2. Assess the reality of becoming an entrepreneur, including advantages and disadvantages (e.g., risk versus reward, reasons for success and failure).
- 1.6.3. Explain the importance of planning your business.
- 1.6.4. Identify types of businesses, ownership and entities (i.e., individual proprietorships, partnerships, corporations, cooperatives, public, private, profit, not-for-profit).
- 1.6.5. Describe organizational structure, chain of command, the roles and responsibilities of the organizational departments and interdepartmental interactions.
- 1.6.6. Identify the target market served by the organization, the niche that the organization fills and an outlook of the industry.
- 1.6.7. Identify the effect of supply and demand on products and services.
- 1.6.8. Identify the features and benefits that make an organization's product or service competitive.
- 1.6.9. Explain how the performance of an employee, a department and an organization is assessed.
- 1.6.10. Describe the impact of globalization on an enterprise or organization.
- 1.6.11. Describe how all business activities of an organization work within the parameters of a budget.
- 1.6.12. Describe classifications of employee benefits, rights, deductions and compensations.

Strand 1. Business Operations/21st Century Skills

Learners apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.7. Entrepreneurship/Entrepreneurs

Analyze the environment in which a business operates and the economic factors and opportunities associated with self-employment.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 1.7.1. Compare and contrast the four types of business ownership (i.e., individual proprietorships, partnerships, corporations, cooperatives).
- 1.7.2. Explain the role of profit as the incentive to entrepreneurs in a market economy.
- 1.7.3. Identify the factors that contribute to the success and failure of entrepreneurial ventures.
- 1.7.4. Assess the roles of nonprofit and for-profit businesses.
- 1.7.5. Develop a business plan.
- 1.7.6. Describe life cycles of an entrepreneurial business and an entrepreneur.
- 1.7.7. Create a list of personal strengths, weaknesses, skills and abilities needed to be successful as an entrepreneur.
- 1.7.8. Explain pathways used to become an entrepreneur.
- 1.7.9. Conduct a self-assessment to determine entrepreneurial potential.
- 1.7.10. Describe techniques for obtaining experience (e.g., apprenticeship, co-operative [co-op] education, work placement, internship, job shadowing) related to an entrepreneurial objective.
- 1.7.11. Identify initial steps in establishing a business (e.g., limited liability company [LLC], tax ID, permits, insurance, licensing).
- 1.7.12. Identify resources available to entrepreneurs (e.g., Small Business Administration, mentors, information resources, educational opportunities, grants for artistic support).
- 1.7.13. Protect intellectual property and knowledge (e.g., copyright, patent, trademark, trade secrets, processes).

Strand 1. Business Operations/21st Century Skills

Learners apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.8. Operations Management

Plan, organize and monitor an organization or department to maximize contribution to organizational goals and objectives.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 1.8.1. Forecast future resources and budgetary needs using financial documents (e.g., balance sheet, demand forecasting, financial ratios).
- 1.8.2. Select and organize resources to develop a product or a service.
- 1.8.3. Analyze the performance of organizational activities and reallocate resources to achieve established goals.
- 1.8.4. Identify alternative actions to take when goals are not met (e.g., changing goals, changing strategies, efficiencies).
- 1.8.5. Use inventory and control systems to purchase materials, supplies and equipment (e.g., Last In, First Out [LIFO]; First In, First Out [FIFO]; Just in Time [JIT]; LEAN).
- 1.8.6. Identify the advantages and disadvantages of carrying cost and Just-in-Time (JIT) production systems and the effects of maintaining inventory (e.g., perishable, shrinkage, insurance) on profitability.
- 1.8.7. Collect information and feedback to help assess the organization's strategic planning and policymaking processes.
- 1.8.8. Identify routine activities for maintaining business facilities and equipment.
- 1.8.9. Develop a budget that reflects the strategies and goals of the organization.
- 1.8.10. Analyze how business management and environmental management systems (e.g., health, safety) contribute to continuous improvement and sustainability.

Strand 1. Business Operations/21st Century Skills

Learners apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.9. Financial Management

Use financial tools, strategies and systems to develop, monitor and control the use of financial resources to ensure personal and business financial well-being.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 1.9.1. Create, analyze and interpret financial documents (e.g., budgets, income statements).
- 1.9.2. Identify tax obligations (i.e., opportunities for deductions).
- 1.9.3. Review and summarize savings, investment strategies and purchasing options (e.g., cash, lease, finance, stocks, bonds).
- 1.9.4. Identify credit types and their uses in order to establish credit.
- 1.9.5. Identify ways to avoid or correct debt problems.
- 1.9.6. Explain how credit ratings and the criteria lenders use to evaluate repayment capacity affect access to loans.
- 1.9.7. Review and summarize categories (types) of insurance and identify how insurances can reduce financial risk.
- 1.9.8. Identify income sources and expenditures.
- 1.9.9. Compare and contrast different banking services available through financial institutions.
- 1.9.10. Identify the role of depreciation in tax planning and liability.

Strand 1. Business Operations/21st Century Skills

Learners apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.10. Sales and Marketing

Manage pricing, place, promotion, packaging, positioning and public relations to improve quality customer service.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 1.10.1. Identify how the roles of sales, advertising and public relations contribute to a company's brand.
- 1.10.2. Determine the customer's needs and identify solutions.
- 1.10.3. Communicate features, benefits and warranties of a product or service to the customer.
- 1.10.4. Identify the company policies and procedures for initiating product and service improvements.
- 1.10.5. Monitor customer expectations and determine product/service satisfaction by using measurement tools.
- 1.10.6. Discuss the importance of correct pricing to support a product's or service's positioning in the marketing mix.
- 1.10.7. Describe the importance and diversity of distribution channels (i.e., direct, indirect) to sell a product.
- 1.10.8. Use promotional techniques to maximize sales revenues (e.g., advertising, sales promotions, publicity, public relations).
- 1.10.9. Describe how product mix (e.g., product line, product items) maximizes sales revenues, market, share and profit margin.
- 1.10.10. Demonstrate sales techniques.

Strand 1. Business Operations/21st Century Skills

Learners apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

Outcome 1.11. Principles of Business Economics

Examine and employ economic principles, concepts and policies to accomplish organizational goals and objectives.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 1.11.1. Identify the economic principles that guide geographic location of an industry's facilities (e.g., relative scarcity, price, quantity of products and services).
- 1.11.2. Identify the difference between monetary and nonmonetary incentives and explain how changes in incentives cause changes in behavior.
- 1.11.3. Use economic indicators to identify economic trends (e.g., deregulation) and conditions (e.g., inflation, interest rate fluctuations, unemployment rates).
- 1.11.4. Determine how the quality, quantity and pricing of goods and services are affected by domestic and international competition in a market economy.
- 1.11.5. Analyze factors that affect currency and exchange rates.
- 1.11.6. Explain how financial markets and government policies influence interest rates (credit ratings/debt ceiling), trade deficits and unemployment.
- 1.11.7. Describe how economic performance and culture are interdependent.
- 1.11.8. Identify the relationships between economy, society and environment that lead to sustainability (e.g., evolution and impact of the arts).
- 1.11.9. Describe how laws and regulations influence domestic and international trade.

Strand 2. Design

Learners apply the elements and principles of design and compositional techniques to create works of art and visual layouts for both tactile and digital art forms.

Outcome 2.1. Art Elements and Design Principles

Analyze works of art for the art elements and the design principles needed to create professional products.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 2.1.1. Describe art elements of line, value, color, shape, space, form and texture in various media that are used individually or in combination.
- 2.1.2. Identify specific characteristics (i.e., positive and negative, organic, geometric, quality, weight, direction) of art elements that communicate and express ideas.
- 2.1.3. Determine how and when to apply the principles of design, including unity, variety, balance, movement, emphasis, visual hierarchy and proportion/scale, to communicate ideas.
- 2.1.4. Compare and contrast unity and variety within a design.
- 2.1.5. Contrast formal/symmetrical, informal/asymmetrical and radial balance.
- 2.1.6. Observe movement shown through repetition, pattern and rhythm.
- 2.1.7. Interpret emphasis through contrast, isolation, size and placement.
- 2.1.8. Identify visual hierarchy used to establish dominance.
- 2.1.9. Recognize the use of proportion/scale.

Strand 2. Design

Learners apply the elements and principles of design and compositional techniques to create works of art and visual layouts for both tactile and digital art forms.

Outcome 2.2. Color Theory

Assess the use of color for commercial design.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 2.2.1. Explain the science of color perception using the electromagnetic spectrum.
- 2.2.2. Analyze position in color theory models (e.g., color wheel; Munsell's design relationship among chroma/intensity, value/lightness and hue).
- 2.2.3. Describe how changes to tint, shade, hue, value, intensity and saturation relate to color theory.
- 2.2.4. Identify gamut output issues and calibrate color.
- 2.2.5. Select color profiles for different mediums (e.g., Red Green Blue [RGB], Cyan Magenta Yellow Key [CMYK], Pantone®, Reference Output Medium Metric [ROMM] RGB, CIE-L*a*B* color space).
- 2.2.6. Replicate color across multiple mediums accommodating how color changes from the monitor to the final product (e.g., coated and uncoated papers, metallic, color-calibrated monitors).
- 2.2.7. Compare and contrast additive and subtractive color theory (e.g., RGB, CMYK).
- 2.2.8. Compare and contrast choices using the psychology of color.
- 2.2.9. Critique the use of color schemes (e.g., primary, secondary, tertiary, analogous, complementary, triads, monochromatic) in various media.

Strand 2. Design

Learners apply the elements and principles of design and compositional techniques to create works of art and visual layouts for both tactile and digital art forms.

Outcome 2.3. Art Forms

Apply art elements and design principles to create two-dimensional (2D) and three-dimensional (3D) commercial products using various media to communicate the message and evoke the desired audience response.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
		X

Competencies

- 2.3.1. Render a proportionately correct portrait and figure drawing.
- 2.3.2. Draw in one-point, two-point, multi-point and aerial perspectives.
- 2.3.3. Apply color using pencil, marker, dry media, wet media and digital media.
- 2.3.4. Demonstrate shape, volume, depth and dimension.
- 2.3.5. Employ techniques that produce actual and implied texture (e.g., filters, embroidery, embossing, clay, wax, wood, metal).
- 2.3.6. Select the material based on its characteristics (e.g., design, construction, maintenance, care of product) for the intended use.
- 2.3.7. Create a 3D design according to specific measurements using drawing, cutting, scoring and bonding techniques.

Strand 2. Design

Learners apply the elements and principles of design and compositional techniques to create works of art and visual layouts for both tactile and digital art forms.

Outcome 2.4. Visual Layouts

Create layouts for pre-production and analyze the communicative effects on the commercial product.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X		X

Competencies

- 2.4.1. Create thumbnail and rough sketches.
- 2.4.2. Apply the proper color profile for the final output.
- 2.4.3. Create single and multi-color layouts using images and formats.
- 2.4.4. Use process color and spot color separations.
- 2.4.5. Differentiate between raster- and vector-based layouts.
- 2.4.6. Apply the components of a comprehensive layout (e.g., color scheme, font, white space, text graphics, frames, headings) according to an overall theme for the product.
- 2.4.7. Determine composition, formal qualities, scale and use of space.
- 2.4.8. Apply compositional techniques, including rule of thirds, use of a grid system, 180-degree rule, framing, fill frame, pyramid, strong center of interest and aspect ratio.
- 2.4.9. Create visual continuity among a variety of products.
- 2.4.10. Determine how the technical characteristics of the print medium affect content and style.
- 2.4.11. Calculate finishing requirements in a layout (e.g., registration marks, bleed, slugs).
- 2.4.12. Evaluate the product in terms of the message or meaning for the targeted audience.

Strand 2. Design

Learners apply the elements and principles of design and compositional techniques to create works of art and visual layouts for both tactile and digital art forms.

Outcome 2.5. Typography

Apply typographical elements for a commercial presentation.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X		X

Competencies

- 2.5.1. Select typefaces (e.g., serif, sans serif).
- 2.5.2. Apply typography kerning and leading to typefaces for readability.
- 2.5.3. Use typographic measurements in terms of picas, points, pixels and ems.
- 2.5.4. Mix families of type within a project.
- 2.5.5. Use typography as a primary component of logo design.
- 2.5.6. Determine the effect of various font types on operating systems.
- 2.5.7. Assess typography's effects on message delivery and aesthetics (e.g., limit families, readability).

Strand 3. Written Content Creation

Learners apply content creation knowledge and skills to use the intended message for entertainment, journalism or marketing purposes.

Outcome 3.1. Career-based Writing

Develop basic skills and knowledge related to fact-, entertainment- and marketing-based copy.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 3.1.1. Analyze the writing content and styles of fact-, entertainment- and marketing-based models.
- 3.1.2. Compare and contrast fiction and nonfiction.
- 3.1.3. Assess or determine the platform for delivery (e.g., video, audio, print).
- 3.1.4. Compare and contrast vocabulary, transition words, diction and sentence structure within writing models.
- 3.1.5. Create copy that emphasizes the central theme through supporting ideas or facts.
- 3.1.6. Adapt writing for the literacy level of the audience, including the use of readability software.
- 3.1.7. Critique timeliness, effect and proximity characteristics of copy.
- 3.1.8. Meet word count and organization-sensitive requirements.
- 3.1.9. Adapt the format (e.g., web, column) and body style (e.g., inverted-pyramid, hourglass, narrative) based on technical requirements and the purpose for writing.
- 3.1.10. Select visual imagery to support or enhance copy.
- 3.1.11. Review, re-write and edit to prepare the final copy for client and artistic approval.
- 3.1.12. Critique the impact of your writing and incorporate feedback in a revision.

Strand 3. Written Content Creation

Learners apply content creation knowledge and skills to use the intended message for entertainment, journalism or marketing purposes.

Outcome 3.2. Entertainment-based Writing

Produce copy for products designed for amusement and enjoyment.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	

Competencies

- 3.2.1. Compare and contrast entertainment-based models of content created for print, electronic, audio, video and audio-visual genres.
- 3.2.2. Compare and contrast writing to be read and writing to be performed.
- 3.2.3. Brainstorm the theme and plot through outlining or storyboarding.
- 3.2.4. Create copy in verse format using imagery and symbolism to express sensory details and enhance meaning.
- 3.2.5. Create copy with appropriate tone and content for the speaker or performer.
- 3.2.6. Annotate copy with phonetic spelling for the speaker or performer.
- 3.2.7. Create text for fiction and non-fiction artistic genres.
- 3.2.8. Create fiction and non-fiction scripts for various media.
- 3.2.9. Develop provocative and persuasive audio essays.
- 3.2.10. Determine how the script dictates various elements, including setting, music and blocking.
- 3.2.11. Create script for stage, radio, libretti, television and film.

Strand 3. Written Content Creation

Learners apply content creation knowledge and skills to use the intended message for entertainment, journalism or marketing purposes.

Outcome 3.3. Fact-based Writing

Write concise and focused copy for journalism.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	

Competencies

- 3.3.1. Determine what information is newsworthy.
- 3.3.2. Write stories in basic news style using the inverted pyramid to identify who, what, when, where, why and how.
- 3.3.3. Identify positions from research and resources while remaining objective.
- 3.3.4. Compare and contrast objective and subjective fact-based text.
- 3.3.5. Engage and synthesize primary, secondary, quantitative and qualitative research.
- 3.3.6. Conduct primary source interviews using face-to-face and electronic programming.
- 3.3.7. Follow protocol for off-the-record information.
- 3.3.8. Design a story lead based on purpose and audience.
- 3.3.9. Create objective and subjective informational text for multiple purposes, including editorial, press releases, biographies, narratives, public service announcements and social media.
- 3.3.10. Apply direct, indirect and partial quotes.
- 3.3.11. Create content format, length and flow based on purpose, audience and channel.
- 3.3.12. Create specialized stories.
- 3.3.13. Engage symmetrical and asymmetrical strategies in the creation and revision of content.

Strand 3. Written Content Creation

Learners apply content creation knowledge and skills to use the intended message for entertainment, journalism or marketing purposes.

Outcome 3.4. Market-based Writing

Write concise, creative, memorable, sellable copy for advertising, public relations and proposals.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 3.4.1. Research and analyze trends and local markets for opportunities.
- 3.4.2. Determine the wants and needs of the target audience.
- 3.4.3. Communicate brand image and product value.
- 3.4.4. Create subjective text to market products, including posters, advertising jingles and opening sequences for television.
- 3.4.5. Synthesize ideas for primary and secondary messages.
- 3.4.6. Apply the product, price, promotion and placement components of marketing.
- 3.4.7. Implement the voice of the customer in branding.
- 3.4.8. Create and revise messages for word-of-mouth, advertising and social media channels.
- 3.4.9. Critique advertisements to ensure the achievement of goals and objectives.
- 3.4.10. Apply channels of direct mail, online, email, Web and social media strategies.

Strand 4. Audio, Video and Photo Imaging

Learners apply knowledge and skills of photography and videography to capture, engineer and manipulate audio, images and video for a media production.

Outcome 4.1. Science of Sound

Apply the characteristics and properties of sound to a professional production.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	

Competencies

- 4.1.1. Analyze sound by its properties, including amplitude, frequency, wavelength, velocity, diffraction, diffusion, phase and harmonics.
- 4.1.2. Classify elements in sound transduction, including resistance, balanced versus unbalanced lines and how sound energy is converted into electrical energy.
- 4.1.3. Identify sound as measured or perceived.
- 4.1.4. Identify sound pressure level (SPL).
- 4.1.5. Analyze acoustics and their impact on sound.
- 4.1.6. Apply the principles of direct sound, early reflection and reverberation.
- 4.1.7. Deconstruct the four elements of a waveform signal.
- 4.1.8. Apply the principles of digital audio theory (e.g., sampling rate, Nyquist Theorem).

Strand 4. Audio, Video and Photo Imaging

Learners apply knowledge and skills of photography and videography to capture, engineer and manipulate audio, images and video for a media production.

Outcome 4.2. Audio Capturing

Apply the principles and properties of how sound is measured, converted and perceived to capture an audio recording for professional purposes.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	

Competencies

- 4.2.1. Determine sound recording requirements.
- 4.2.2. Compare and contrast microphone properties (e.g., polar patterns, type of transducer) with their intended use (e.g., handheld, wireless, boom).
- 4.2.3. Determine microphone and speaker placement, according to their directional characteristics.
- 4.2.4. Record on dual system devices.
- 4.2.5. Import audio using analog-to-digital interfaces (e.g., Musical Instrument Digital Interface [MIDI], breakout boxes).
- 4.2.6. Organize a production from audio recording to distributing.
- 4.2.7. Distinguish among digital media formats (e.g., .mp3, .mp4, .wav, .aiff).
- 4.2.8. Select a score for production and post-production needs.

Strand 4. Audio, Video and Photo Imaging

Learners apply knowledge and skills of photography and videography to capture, engineer and manipulate audio, images and video for a media production.

Outcome 4.3. Audio Operations

Manipulate recordings for professional purposes.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 4.3.1. Produce live sound, tracks and overdubbing (e.g., narrative, voiceover, music).
- 4.3.2. Apply the principles of compression and limiting.
- 4.3.3. Differentiate between linear and non-linear transfers.
- 4.3.4. Synchronize new audio tracks with previously recorded video and audio tracks.
- 4.3.5. Perform audio mixing, including relative level, spatial positioning, equalization, dynamics processing and effects processing).
- 4.3.6. Apply virtual mixing techniques.
- 4.3.7. Apply the principles of time-based effects.
- 4.3.8. Synchronize sound effects for film, television, radio or live performances.
- 4.3.9. Adjust sound according to the needs of the environment.
- 4.3.10. Select and place audio amplifiers, speakers and monitors for the planned effect.
- 4.3.11. Eliminate feedback by applying principles of electronics equalization.

Strand 4. Audio, Video and Photo Imaging

Learners apply knowledge and skills of photography and videography to capture, engineer and manipulate audio, images and video for a media production.

Outcome 4.4. Lighting

Measure and manipulate lighting based on the characteristics and properties of light.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 4.4.1. Measure light levels using a light exposure meter.
- 4.4.2. Employ the characteristics (e.g., hard light, diffused light, incident light) and properties of light.
- 4.4.3. Manipulate and direct light using ratios, gels, filters, diffusion and gobos.
- 4.4.4. Implement lighting techniques (e.g., four-point, bounce, high-key, low-key, cross-key, mixed) to produce specific effects.

Strand 4. Audio, Video and Photo Imaging

Learners apply knowledge and skills of photography and videography to capture, engineer and manipulate audio, images and video for a media production.

Outcome 4.5. Photography

Capture and edit still images for commercial purposes.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X		X

Competencies

- 4.5.1. Analyze the capabilities of different image capturing devices.
- 4.5.2. Clean and maintain camera equipment.
- 4.5.3. Identify the effects of ISO settings on image quality.
- 4.5.4. Achieve proper exposure through light, shutter speed and aperture.
- 4.5.5. Affect apparent motion through shutter speed.
- 4.5.6. Manipulate aperture settings to alter depth of field.
- 4.5.7. Alter image through focus, white balance, exposure modes and polarization.
- 4.5.8. Capture images through various lenses and camera angles.
- 4.5.9. Modify images through sizing, cropping and output resolution.
- 4.5.10. Modify an image through color-management and special effects.
- 4.5.11. Enhance an image with tone, contrast, filters, composites and sharpening techniques.
- 4.5.12. Retouch an image by cloning, healing, patching and rebuilding.
- 4.5.13. Integrate image capture with post-production processes.
- 4.5.14. Capture multiple images and render them in high dynamic range.

Strand 4. Audio, Video and Photo Imaging

Learners apply knowledge and skills of photography and videography to capture, engineer and manipulate audio, images and video for a media production.

Outcome 4.6. Videography

Shoot video for professional and archival purposes.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 4.6.1. Analyze the capabilities of different video devices.
- 4.6.2. Select, prepare, clean and maintain equipment for a production.
- 4.6.3. Achieve proper exposure and depth of field using gain, white balance, focus, focal length, audio controls, bars and tone.
- 4.6.4. Select file format, frame speed and resolution.
- 4.6.5. Frame shots for proper composition, including extreme long, long, medium, close-up, extreme close-up, two-shot, over-the-shoulder, head room, nose room and lead room.
- 4.6.6. Apply screen direction using vectors (e.g., motion, index, graphic).
- 4.6.7. Create steady shots and smooth camera movements using handheld techniques, tripods and other stabilizing equipment.
- 4.6.8. Create slow/fast motion effect by adjusting shutter speed.
- 4.6.9. Log video during shooting.

Strand 4. Audio, Video and Photo Imaging

Learners apply knowledge and skills of photography and videography to capture, engineer and manipulate audio, images and video for a media production.

Outcome 4.7. Audio/Video Editing

Edit post-production audio or video for commercial purposes.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 4.7.1. Compare and contrast linear and nonlinear digital editing systems for audio/video.
- 4.7.2. Import and log media for editing.
- 4.7.3. Manage files of digital clips.
- 4.7.4. Use storyboard techniques to place media on a timeline.
- 4.7.5. Correct color, condense and enhance a video production.
- 4.7.6. Edit audio or video online and offline with transitions, cutting points, order of shots and continuity.
- 4.7.7. Add special effects to a video through filters, keying and image control.
- 4.7.8. Mix audio for video through filters, ambient sound, sound effects, equalization (EQ) and matching levels.
- 4.7.9. Create graphics for video products (e.g., titles, still images).
- 4.7.10. Export and upload media in the appropriate format (e.g., print to video, DVD, video file).

Strand 5. Print Production Process

Learners apply knowledge and skills to produce print or digital products.

Outcome 5.1. File Preflight

Preflight files before printing.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X		X

Competencies

- 5.1.1. Load customer files on a prepress system and open in a design application.
- 5.1.2. Compare the on-screen layout to the customer proof.
- 5.1.3. Examine the page format for production or output issues, including pagination, bleeds, folds, imposition, total ink coverage and color separations.
- 5.1.4. Examine font and picture usage for mapping, alignment, linking and resolution issues.
- 5.1.5. Identify color correction factors, including assignment, gamut, dot gain, screen angles, trapping, gray balance and rich black.
- 5.1.6. Troubleshoot files coded with computer programming language.
- 5.1.7. Confirm file accuracy through test printing.

Strand 5. Print Production Process

Learners apply knowledge and skills to produce print or digital products.

Outcome 5.2. File Output

Output files for print production.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
		X

Competencies

- 5.2.1. Determine the resolution of the output device.
- 5.2.2. Apply color management through a calibrated system.
- 5.2.3. Manage output factors, including file management and raster image processing.
- 5.2.4. Interpret printers' marks.
- 5.2.5. Verify that imagesetter materials and settings are correct.
- 5.2.6. Compare image carrier generation methods, including computer-to-plate [CTP], film based, screen and flexography.
- 5.2.7. Analyze factors for image carrier issues, including depleted chemistry and light leak.
- 5.2.8. Check color separations.

Strand 5. Print Production Process

Learners apply knowledge and skills to produce print or digital products.

Outcome 5.3. Offset Image Control Systems

Set up substrate and image control systems for printing.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
		X

Competencies

- 5.3.1. Describe substrate transport pathways.
- 5.3.2. Apply color matching specifications for industry recognized systems.
- 5.3.3. Maintain conductivity and pH levels for offset printing.
- 5.3.4. Set up and adjust register systems.
- 5.3.5. Maintain image density and coverage.
- 5.3.6. Compare drying methods, including heat, oxidation, ultraviolet [UV], additives and infrared.
- 5.3.7. Preserve image carriers.
- 5.3.8. Select ink types based on their properties and product specifications.

Strand 5. Print Production Process

Learners apply knowledge and skills to produce print or digital products.

Outcome 5.4. Printed Images

Create printed images according to the client's approved proof.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
		X

Competencies

- 5.4.1. Compare and contrast color density proofs and press sheets for offset, wide-format inkjet and laser formats using visual and equipment readings.
- 5.4.2. Interpret color bars.
- 5.4.3. Analyze the effects of single-color and multiple-color (e.g., Pantone®, spot color) output on various substrates (e.g., paper, plastic, recycled materials).
- 5.4.4. Analyze the effects of process color output on various substrates (e.g., paper, plastic, recycled materials).
- 5.4.5. Analyze and maintain print quality controls for offset, wide-format inkjet and laser formats.
- 5.4.6. Produce copies following project specifications.
- 5.4.7. Identify the image quality factors that are measured by a densitometer and a spectrophotometer and other quality control devices.

Strand 5. Print Production Process

Learners apply knowledge and skills to produce print or digital products.

Outcome 5.5. Digital Print Methods

Analyze digital print technologies for digital and offset production.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
		X

Competencies

- 5.5.1. Identify digital printing technologies and uses, including laser, toner-based xerography, ink-based digital and wide-format inkjet.
- 5.5.2. Create digital masters for production, including offset and digital ink-based printing.
- 5.5.3. Analyze the raster image processor (RIP), including its functionality, purpose and significance in a digital printing workflow.
- 5.5.4. Identify the types of file formats that can be sent to a RIP.
- 5.5.5. Compare digital printing to offset printing.
- 5.5.6. Compare and contrast proofing techniques used in digital and offset printing technologies.
- 5.5.7. Compare the differences between colorants and substrates used in digital printing versus offset printing.
- 5.5.8. Identify substrate-related print quality issues as they relate to digital printing.
- 5.5.9. Identify the basic subsystems and the functions of the components of digital output devices.

Strand 5. Print Production Process

Learners apply knowledge and skills to produce print or digital products.

Outcome 5.6. Digital Production Printing

Produce digital print jobs on digital print systems.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
		X

Competencies

- 5.6.1. Use database software and text/graphics to create a variable data printing job.
- 5.6.2. Plan and execute a digital job, including reading and interpreting production information on a job docket/ticket, maintaining a checklist and queuing a job.
- 5.6.3. Determine the proper output device according to job specifications.
- 5.6.4. Select finishing methods within the output software, including stitching, folding, booklet-making and hole-punching.
- 5.6.5. Manage output product types for digital printing.
- 5.6.6. Print black-and-white and process-color jobs on coated and uncoated paper.
- 5.6.7. Analyze the capabilities of three-dimensional (3D) printing.

Strand 5. Print Production Process

Learners apply knowledge and skills to produce print or digital products.

Outcome 5.7. Screen Printing and Embroidery

Engage screen printing and embroidery operations.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
		X

Competencies

- 5.7.1. Identify substrates and their marketable applications in screen printing and embroidery.
- 5.7.2. Compare the differences in screen printing inks and embroidery threads.
- 5.7.3. Adjust the factors that determine the quality of the impression (e.g., angle, pressure, speed, composition).
- 5.7.4. Compare light-emitting diode (LED) lamps to medium-pressure mercury lamps and select the lamp for the given screen printing purpose.
- 5.7.5. Explain image digitization for embroidery purposes.
- 5.7.6. Explain stitch count and hoop size, using embroidery software.
- 5.7.7. Perform maintenance on embroidery machines.
- 5.7.8. Create final print materials for screen printing and embroidery and verify printing quality.
- 5.7.9. Dry or cure printed objects for screen printing projects.
- 5.7.10. Reclaim screens and waste materials for screen printing projects.

Strand 5. Print Production Process

Learners apply knowledge and skills to produce print or digital products.

Outcome 5.8. Binding and Finishing

Evaluate post image transfer finishing methods and techniques.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
		X

Competencies

- 5.8.1. Identify post image transfer finishing requirements.
- 5.8.2. Describe and identify inline- and offline-finishing systems.
- 5.8.3. Explain specifications for folding and using mockups.
- 5.8.4. Fold products, using single-, letter- and tri-fold.
- 5.8.5. Score and perforate products.
- 5.8.6. Bind products through drilling, perfect binding and saddle and flat stitching techniques.
- 5.8.7. Finish a saddle-stitched product through in-line, near-line and off-line methods.
- 5.8.8. Identify requirements for padding.
- 5.8.9. Apply specialty finishing processes, including thermography, foil stamping, embossing and die cutting.
- 5.8.10. Calculate basic paper cuts and strategies.
- 5.8.11. Assemble three-dimensional (3D) products (e.g., packaging, promotional and point-of-purchase displays, folders, pop-up books).

Strand 6. Digital Design

Learners apply knowledge and skills of digital design to manipulate and animate new and existing audio, video or photo images to create graphics for internet, broadcast, mobile and other multimedia applications.

Outcome 6.1. Content Management

Import, store, export and manage digital assets.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 6.1.1. Identify the characteristics that make media interactive.
- 6.1.2. Compare how digital and interactive media are used in different environments (e.g., kiosks, electronic billboards, Digital Out of Home [DOOH] signage, games).
- 6.1.3. Select an application according to its capabilities in meeting the purpose and budget.
- 6.1.4. Import media into the selected application.
- 6.1.5. Identify the hardware capabilities of various devices and how processor speed, Random Access Memory (RAM), monitor resolution and media storage affect the development and use of digital projects.
- 6.1.6. Convert file formats for use in editing software and other applications.
- 6.1.7. Export media in the appropriate format for delivery.
- 6.1.8. Manage digital assets through organizational techniques (e.g., metadata, keywords, file/folder structure, name conventions).

Strand 6. Digital Design

Learners apply knowledge and skills of digital design to manipulate and animate new and existing audio, video or photo images to create graphics for internet, broadcast, mobile and other multimedia applications.

Outcome 6.2. Scanning

Apply scanning techniques and procedures to capture images for design.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X		X

Competencies

- 6.2.1. Describe the relationship between lines per inch (LPI) and dots per inch (DPI).
- 6.2.2. Describe the relationship between resolution and file size.
- 6.2.3. Manipulate input functions and calibrate scanning equipment (e.g., descreening, gamma, resolution).
- 6.2.4. Scan images.
- 6.2.5. Save images in various modes, resolutions and formats.
- 6.2.6. Scale, size and adjust file resolution for multiple uses.

Strand 6. Digital Design

Learners apply knowledge and skills of digital design to manipulate and animate new and existing audio, video or photo images to create graphics for internet, broadcast, mobile and other multimedia applications.

Outcome 6.3. Graphics

Create and manipulate two-dimensional (2D) and three-dimensional (3D) digital graphics.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X		X

Competencies

- 6.3.1. Draw digital graphics.
- 6.3.2. Manipulate the attributes of graphics (e.g., color, shape, size, texture).
- 6.3.3. Arrange graphics using layers.
- 6.3.4. Select a graphic file format based on compression, resolution and file size.
- 6.3.5. Optimize and export graphic files for intended use.

Strand 6. Digital Design

Learners apply knowledge and skills of digital design to manipulate and animate new and existing audio, video or photo images to create graphics for internet, broadcast, mobile and other multimedia applications.

Outcome 6.4. Animation

Create digital animation.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	X

Competencies

- 6.4.1. Develop a plan and storyboard for an animation.
- 6.4.2. Import two-dimensional (2D) and three-dimensional (3D) assets.
- 6.4.3. Create key frames and apply tweens and paths.
- 6.4.4. Create special effects and virtual navigation.
- 6.4.5. Create environments for 2D and 3D animations.
- 6.4.6. Render and export animations.

Strand 6. Digital Design

Learners apply knowledge and skills of digital design to manipulate and animate new and existing audio, video or photo images to create graphics for internet, broadcast, mobile and other multimedia applications.

Outcome 6.5. Web Page Design

Design and create webpages to appeal to the end user.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X		X

Competencies

- 6.5.1. Identify how different devices, browsers and operating systems affect the look of a web page.
- 6.5.2. Explain how bandwidths affect data transmission.
- 6.5.3. Describe the basic principles of Hypertext Markup Language (HTML) and its functional relationship with web browsers.
- 6.5.4. Select a web page template based on website characteristics.
- 6.5.5. Design a web page based on subject, devices, audience, layout, color, navigation, graphics and Americans with Disabilities Act (ADA) requirements.
- 6.5.6. Organize assets for a functional web page.
- 6.5.7. Create and format ordered and unordered lists on a web page.
- 6.5.8. Create and format a table on a web page.
- 6.5.9. Integrate inline styles.
- 6.5.10. Create and attach cascading style sheets (CSS).
- 6.5.11. Design a data entry form from specifications that will accept a variety of user inputs (e.g., radio buttons, text entry fields, check boxes, drop-down menus).
- 6.5.12. Incorporate audio, video, graphics and animations into a web page.
- 6.5.13. Create rollovers, text wraps and hyperlinks.
- 6.5.14. Draft, revise, edit and proofread to check for format and text accuracy.
- 6.5.15. Execute usability tests on a completed web page, checking for information accessibility, ease of use and navigation on multiple platforms and devices.
- 6.5.16. Publish a functioning web page for multiple devices, including advanced functionalities (e.g., database, ecommerce).
- 6.5.17. Collect and interpret data analytics.
- 6.5.18. Transfer files using file compression for transfer or storage.

Strand 7. Performance

Learners apply knowledge and skills for performance, including roles, processes, procedures and production design.

Outcome 7.1. Interrelationships

Examine and explore how music, dance and theatre disciplines connect to create a production.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
	X	

Competencies

- 7.1.1. Identify the similarities in preparation and audition among the performing arts disciplines.
- 7.1.2. Evaluate the importance of the audience and its relationship to the performance.
- 7.1.3. Describe how the level of training impacts a performance.
- 7.1.4. Explain the level of skill and training to reach a professional production level of a performance.
- 7.1.5. Describe and critique the elements of a performance from an audience member's perspective.
- 7.1.6. Determine the relationship among costume, scenic, lighting and sound designers.

Strand 7. Performance

Learners apply knowledge and skills for performance, including roles, processes, procedures and production design.

Outcome 7.2. Genres

Analyze and critique the stylistic differences among genres.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	

Competencies

- 7.2.1. Compare and contrast the various styles.
- 7.2.2. Identify and compare the lives, works and influence of significant individuals in various cultures, traditions and historical periods.
- 7.2.3. Compare and contrast characteristics (e.g., technique, form, content) of genres from a particular time period or area of influence.
- 7.2.4. Explain the influence of social context, historical periods and culture in the development of a performance.

Strand 7. Performance

Learners apply knowledge and skills for performance, including roles, processes, procedures and production design.

Outcome 7.3. Basic Movement

Execute basic movement concepts in performance.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
	X	

Competencies

- 7.3.1. Use exercises that build strength, stamina, flexibility, agility and coordination in locomotor and non-locomotor movements.
- 7.3.2. Apply appropriate alignment, isolation, strength, flexibility, agility and coordination in locomotor and non-locomotor movements.
- 7.3.3. Perform various examples of dance steps and movements within a dance genre.
- 7.3.4. Exhibit stage presence, confidence and focus.
- 7.3.5. Exhibit aesthetic awareness, creation of line, rhythm, musicality, expression and movement dynamics.
- 7.3.6. Perform an extended movement sequence or dance sequence from memory.

Strand 7. Performance

Learners apply knowledge and skills for performance, including roles, processes, procedures and production design.

Outcome 7.4. Space, Time and Energy

Exhibit the use of space, time and energy through performance.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
	X	

Competencies

- 7.4.1. Work within conventional and nonconventional spaces.
- 7.4.2. Use space and dynamics in solo and ensemble performances.
- 7.4.3. Respond to meter, rhythmic pattern and phrasing in a performance.
- 7.4.4. Apply various patterns in performance movements.
- 7.4.5. Alter a theatrical, choreographic or interdisciplinary performance.

Strand 7. Performance

Learners apply knowledge and skills for performance, including roles, processes, procedures and production design.

Outcome 7.5. Choreography

Choreograph a dance using choreographic principles, processes and structures.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
	X	

Competencies

- 7.5.1. Apply contrast and transition using choreographic principles.
- 7.5.2. Apply processes of improvisation, reordering and chance.
- 7.5.3. Compare and contrast the differences between abstract and narrative movements.
- 7.5.4. Choreograph dances from multiple genres.
- 7.5.5. Create a movement sequence that incorporates dance techniques and choreographic forms and principles.
- 7.5.6. Create unified ensemble movement.
- 7.5.7. Critique a choreographed complementary and contrasting form for an ensemble.
- 7.5.8. Execute the use of balance, counter-balance and the support of weight through partnering techniques.
- 7.5.9. Adapt movement to the choreographer's intent.

Strand 7. Performance

Learners apply knowledge and skills for performance, including roles, processes, procedures and production design.

Outcome 7.6. Music Elements

Distinguish the elements of music through listening.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	

Competencies

- 7.6.1. Identify pitch, interval, scales, solfege and chords.
- 7.6.2. Identify meter.
- 7.6.3. Identify voice leading and harmonic progressions.
- 7.6.4. Identify the relationship between melodies and harmony.
- 7.6.5. Identify the tonality of work.
- 7.6.6. Identify the rhythmic pattern of a piece of music.
- 7.6.7. Identify texture and form.
- 7.6.8. Identify different instrumental and vocal timbres.
- 7.6.9. Compare and contrast rhythm, patterns and style in a performance.
- 7.6.10. Analyze examples of a varied repertoire of music, representing diverse styles and cultures.

Strand 7. Performance

Learners apply knowledge and skills for performance, including roles, processes, procedures and production design.

Outcome 7.7. Musical Symbols

Interpret musical symbols.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	

Competencies

- 7.7.1. Identify music notational symbols from a vocal or instrumental score.
- 7.7.2. Sight read using music theory-based systems.
- 7.7.3. Identify major, minor and modal tonalities.
- 7.7.4. Identify rhythms in various meters.
- 7.7.5. Interpret articulations, dynamics, expressive symbols and terms.

Strand 7. Performance

Learners apply knowledge and skills for performance, including roles, processes, procedures and production design.

Outcome 7.8. Musical Performance

Perform different styles of instrumental or vocal music in solos and ensembles.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	

Competencies

- 7.8.1. Apply the elements of music that produce an expressive effect.
- 7.8.2. Perform, with expression and technical accuracy, a varied repertoire of particular styles or genres.
- 7.8.3. Translate the musical score into a performance.
- 7.8.4. Respond to the cues of a conductor or section leader.
- 7.8.5. Perform with attention to key, balance, intonation, phrasing, pitch and rhythmic accuracy.
- 7.8.6. Improvise rhythmic and melodic variations over given chord progressions and symbols.
- 7.8.7. Employ the correct technique required for characteristic tone production, including posture, breath support, hand position, embouchure and vocal placement.
- 7.8.8. Identify matching pitches from two or more sources.
- 7.8.9. Evaluate a performance, composition, arrangement or improvisation by comparing it to similar or exemplary models.

Strand 7. Performance

Learners apply knowledge and skills for performance, including roles, processes, procedures and production design.

Outcome 7.9. Musical Composition

Arrange, compose and score music using notation and sequencing software.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	

Competencies

- 7.9.1. Analyze the form, melody, harmony and rhythm of a composition.
- 7.9.2. Transpose musical notation.
- 7.9.3. Compose and score a musical composition in several distinct styles.
- 7.9.4. Arrange pieces for voices or instruments, other than those for which the pieces were written.
- 7.9.5. Compose or arrange music for voices and instruments.

Strand 7. Performance

Learners apply knowledge and skills for performance, including roles, processes, procedures and production design.

Outcome 7.10. Acting Process

Create, research and perform a variety of believable, multidimensional roles.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
	X	

Competencies

- 7.10.1. Analyze a script and use clues, inherent in the dialogue, to create a character.
- 7.10.2. Develop vocal and physical attributes of a role using the script, direction and imagination.
- 7.10.3. Develop the score of action for a role based on given circumstances.
- 7.10.4. Apply a series of everyday activities to the role through sensory imagination.
- 7.10.5. Develop the physical, social and emotional elements of a character through action.
- 7.10.6. Express a variety of characters and different theatrical styles through vocal qualities, posture, movement and language.
- 7.10.7. Sustain a character as an actor in an ensemble rehearsal and performance.
- 7.10.8. Identify and execute inner monologue, personal imagery, imaginative imagery, personal associations and elements of action.
- 7.10.9. Research different social contexts of character relationships, classes and situations.
- 7.10.10. Apply classical and contemporary acting techniques.
- 7.10.11. Evaluate collaborative efforts and artistic choices in informal and formal productions.

Strand 7. Performance

Learners apply knowledge and skills for performance, including roles, processes, procedures and production design.

Outcome 7.11. Production Management

Assign roles, functions and procedures based on a script or production plan.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	

Competencies

- 7.11.1. Identify the stages in the production process.
- 7.11.2. Describe the function and responsibilities of individuals involved in creating, planning, scheduling and producing a production.
- 7.11.3. Develop script formats, interpretations, subjects, production choices and ideas.
- 7.11.4. Secure talent and a location.
- 7.11.5. Manage personnel and workflow.
- 7.11.6. Align the scenes and cast with the script or production plan.

Strand 7. Performance

Learners apply knowledge and skills for performance, including roles, processes, procedures and production design.

Outcome 7.12. Production Design

Adapt the elements of stagecraft to a script or production plan.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	

Competencies

- 7.12.1. Create a design that captures the director's vision and concept.
- 7.12.2. Create a design using standards scenery elements.
- 7.12.3. Integrate all design elements (e.g., costuming, scenery, lighting, audio and properties) to reflect the mood, setting and socioeconomic statuses indicated in the production plan.
- 7.12.4. Determine stage rigging based on stage configuration.
- 7.12.5. Create a set rendering, scale ground plan and set model using different techniques (e.g., collage, paint elevation chart, thumbnail design).
- 7.12.6. Identify stagecraft properties and their function and placement in a production.
- 7.12.7. Execute scenic painting, lighting and costuming based on the audience's perception of highlights and shadows.
- 7.12.8. Interpret the elements of a simple light plot.
- 7.12.9. Execute a lighting design.

Strand 7. Performance

Learners apply knowledge and skills for performance, including roles, processes, procedures and production design.

Outcome 7.13. Costuming

Create and apply wardrobe, hair style and makeup for a performance.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
	X	

Competencies

- 7.13.1. Develop a character analysis to create costuming for production.
- 7.13.2. Create renderings to illustrate design choices based on a script analysis or production plan.
- 7.13.3. Create and interpret a costume plot to track the movement and specific costuming needs of characters in a play, including quick changes.
- 7.13.4. Render costume concepts to scale.
- 7.13.5. Develop a plan to create costumes that are functional and artistically effective.
- 7.13.6. Compare and contrast the various methods of acquiring costuming within the confines of a budget.
- 7.13.7. Apply wardrobe, hair and makeup to convey the mood, character, setting and social status of a character.
- 7.13.8. Create garments using machine and hand sewing.
- 7.13.9. Adapt commercial sewing patterns for theatrical use.
- 7.13.10. Describe the relationship among costume, scenic, lighting and sound designers.

Strand 7. Performance

Learners apply knowledge and skills for performance, including roles, processes, procedures and production design.

Outcome 7.14. Performance Demands

Meet the physical, vocal and psychological demands of a performance.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
	X	

Competencies

- 7.14.1. Apply the warm-up process and other techniques that prevent strain on various parts of the body and voice.
- 7.14.2. Recognize physical stress as a potential risk factor to the body's various movements.
- 7.14.3. Develop techniques to enhance a performance based on the knowledge of anatomy and physiology.
- 7.14.4. Develop a nutrition plan and lifestyle choices that support optimal performance and reduce stress and injury.
- 7.14.5. Anticipate the physical requirements of a performance.
- 7.14.6. Overcome psychological stresses to minimize their impacts on a performance.
- 7.14.7. Manage and relieve anxieties.

Strand 7. Performance

Learners apply knowledge and skills for performance, including roles, processes, procedures and production design.

Outcome 7.15. Rehearsal and Audition

Establish skills and habits necessary for auditions, individual practice and rehearsals.

An "X" indicates that the pathway applies to the outcome.

Media Arts	Performing Arts	Visual Design
X	X	

Competencies

- 7.15.1. Plan for different types of auditions and adapt to in-person, audio and video format requirements.
- 7.15.2. Select the audition material that meets the expectations of the company or individual holding the audition.
- 7.15.3. Prepare physically and mentally for rehearsal and audition demands.
- 7.15.4. Critique the strengths and weaknesses of a performance during rehearsal.