Interactive Media

ACADEMIC SKILLS

AA SPEAKING AND LISTENING

AA1 Utilize effective verbal and non-verbal communication skills

AA2 Participate in conversation, discussion and group presentations

AA3 Communicate and follow directions/procedures

AA4 Utilize speaking and listening skills to communicate effectively with customers and co-workers

AB READING AND WRITING

AB1 Locate and interpret written information

AB2 Read and interpret workplace documents, e.g., reports, manuals, schematics, flowcharts, tables, graphs

AB3 Identify relevant details, facts and specifications

AB4 Record information accurately and completely

AB5 Demonstrate competence in organizing, writing and editing using correct vocabulary, spelling, grammar and punctuation

AB6 Demonstrate the ability to write clearly and concisely using industry-specific terminology

AC CRITICAL THINKING AND PROBLEM SOLVING

AC1 Utilize critical-thinking skills to determine best options/outcomes, e.g., analyze reliable/unreliable sources of information, use previous experiences, implement crisis management, develop contingency planning

AC2 Utilize innovation and problem-solving skills to arrive at the best solution for the current situation

AC3 Implement effective decision-making skills

AD MATHEMATICS

AD1 Perform basic and higher-level math operations, e.g., addition, subtraction, multiplication, division, decimals, fractions, units of conversion, averaging, percentage, proportion, ratios, numbering systems

AD2 Solve problems using measurement skills, e.g., distance, weight, area, volume

AD3 Make reasonable estimates

AD4 Use tables, graphs, diagrams and charts to obtain or convey information

AD5 Use reasoning and problem-solving skills in mathematics

AE FINANCIAL LITERACY

AE1 Locate, evaluate and apply personal financial information

AE2 Identify the components of a budget and how one is created

AE3 Set personal financial goals and develop a plan for achieving them

AE4 Describe types of financial service providers and considerations in selecting a provider

AE5 Demonstrate ability to meet financial obligations

AF INTERNET USE AND SECURITY

AF1 Recognize the potential risks associated with internet and social media use

AF2 Identify and apply internet security practices, e.g., password security, login, logout, log off, lock computer

AF3 Practice safe, legal and responsible use of technology in the workplace

AG INFORMATION TECHNOLOGY

AG1 Use technology appropriately to enhance professional presentations

AG2 Demonstrate effective, appropriate and ethical use of social media

AG3 Identify ways social media can be used as marketing, advertising and data gathering tools

AH TELECOMMUNICATIONS

AH1 Select and utilize the appropriate environment, devices, services and applications to complete workplace tasks

AH2 Demonstrate appropriate etiquette when using telecommunications, e.g., cell phone, e-mail, messaging services, online meetings, conference calls

EMPLOYABILITY SKILLS

EA POSITIVE WORK ETHIC

EA1 Explain the importance of pride and confidence about work and learning new tasks

EA2 Demonstrate consistent and punctual attendance

EA3 Demonstrate initiative in assuming tasks

EA4 Exhibit dependability in the workplace

EA5 Take and provide direction in the workplace

EA6 Accept responsibility for personal decisions and actions

EB INTEGRITY

EB1 Abide by workplace policies and procedures, e.g., safety, internet and cell phone use, code of conduct

EB2 Demonstrate honesty and reliability

EB3 Demonstrate ethical characteristics and behaviors

EB4 Maintain confidentiality and integrity of company information

EB5 Support the mission and vision of the company

EC SELF-REPRESENTATION

EC1 Demonstrate appropriate dress and hygiene in the workplace

EC2 Use language and manners suitable for the workplace

EC3 Demonstrate polite and respectful behavior toward others

ED TIME, TASK AND RESOURCE MANAGEMENT

ED1 Plan and follow a work schedule

ED2 Complete work tasks successfully with minimal supervision

ED3 Work successfully within budgetary constraints

ED4 Demonstrate ability to stay on task to produce high-quality deliverables on time

EE DIVERSITY AWARENESS

EE1 Define and differentiate diversity, equity, inclusion, discrimination and harassment

EE2 Work effectively with all customers and co-workers

EE3 Explain the benefits of diversity within the workplace

EE4 Explain the importance of respect for the feelings, values and beliefs of others

EE5 Identify strategies to bridge cultural/generational differences and use differing perspectives to increase the overall quality of work

EE6 Illustrate techniques for eliminating bias and stereotyping in the workplace

EE7 Identify ways tasks can be structured to accommodate the diverse needs of workers

EE8 Recognize the challenges and advantages of a global workforce

EF TEAMWORK

EF1 Recognize the characteristics of a team environment and conventional workplace

EF2 Demonstrate effective team skills, e.g., setting goals, listening, following directions, questioning, dividing work, conflict resolution, meeting facilitation, and evaluate their importance in the workplace

EG CREATIVITY AND RESOURCEFULNESS

EG1 Explain the importance of contributing and conveying new ideas in the workplace

EG2 Describe the importance of posing questions when developing ideas

EG3 Explain the value of varying ideas and opinions

EG4 Locate and verify information during the creative process

EH CONFLICT RESOLUTION

EH1 Identify conflict resolution skills to enhance productivity and improve workplace relationships

EH2 Implement conflict resolution strategies and problem-solving skills

EH3 Explain the use of documentation and its role as a component of conflict resolution

EI CUSTOMER/CLIENT SERVICE

EI1 Recognize the importance of and demonstrate how to properly greet/approach customers and clients

EI2 Identify and address needs of customers/clients

EI3 Provide helpful, courteous and knowledgeable service

EI4 Identify appropriate channels of communication with customers/clients, e.g., online, phone call, face-to-face

EI5 Identify techniques to seek and use customer/client feedback to improve company services

EI6 Explain the relationship between customer/client satisfaction and company success

EJ ORGANIZATIONS, SYSTEMS AND CLIMATES

EJ1 Define profit and identify factors affecting the profitability of a business

EJ2 Identify "big picture" issues in conducting business, e.g., forecasting, global market, risk management

EJ3 Identify roles in fulfilling the mission of the workplace

EJ4 Identify the rights of workers, e.g., adult and child labor laws, and other equal employment opportunity laws

EJ5 Recognize the chain of command, organizational flow chart system and hierarchy of management within an organization

EK JOB ACQUISITION AND ADVANCEMENT

EK1 Recognize the importance of maintaining a job and pursuing a career

EK2 Define jobs associated with a specific career path or profession

EK3 Identify and seek various work experience opportunities, e.g., volunteerism, internships, co-op, part-time/full-time employment

EK4 Prepare a resume, cover letter and job application

EK5 Prepare for and participate in a job interview, e.g., research company, highlight personal strengths, prepare questions, conduct a mock interview, dress appropriately

EK6 Explain the components of a successful job interview

EK7 Identify key factors to evaluate employment offers, e.g., salary, benefits packages

EK8 Explain the proper procedure for leaving a job

EL LIFELONG LEARNING

EL1 Acquire current and emerging industry-related information

EL2 Demonstrate commitment to learning as a life-long process and recognize learning opportunities

EL3 Identify various self-improvement opportunities

EL4 Explain the importance of adaptability in career planning and self-management, e.g., diverse portfolio, credentials, professional development

EL5 Employ leadership skills to achieve workplace objectives, e.g., personal vision, adaptability, change, shared vision

EL6 Recognize the importance of job performance evaluation and coaching as it relates to career advancement

EL7 Accept and provide constructive criticism

EL8 Describe the impact of the global economy on jobs and careers

EM JOB SPECIFIC TECHNOLOGIES

EM1 Identify the value of new technologies and their impact on driving continuous change and the need for lifelong learning

EM2 Research and identify emerging technologies for specific careers

EM3 Select appropriate technological resources to accomplish work

EN HEALTH AND SAFETY

EN1 Identify and assume responsibility for the safety of self and others

EN2 Follow safety guidelines in the workplace, e.g., OSHA, CDC

EN3 Explain the impact of personal health and wellness on job performance

OCCUPATIONAL SKILLS

OA COMPUTING SYSTEMS AND THEIR IMPACT ON SOCIETY

OA1 Reduce bias and equity deficits through the design of accessible computational artifacts

OA2 Evaluate and assess how computing impacts personal, ethical, social, economic and cultural practices

OA3 Research how computational innovations that have revolutionized aspects of our culture might have evolved from a need to solve a problem

OA4 Evaluate and design computational artifacts to maximize their benefit to society

OA5 Evaluate the impact of the digital divide, i.e., inequity of computing access, education, influence, on the development of local communities and society

OA6 Systematically design and develop programs for broad audiences by incorporating feedback from users

OA7 Design and develop computational artifacts working in team roles using collaborative tools

OA8 Use version control systems, integrated development environments (IDEs) and collaborative tools and practices, e.g., code documentation, in a group software project

OA9 Evaluate key qualities, e.g., correctness, usability, readability, efficiency, of a program

OB PROJECT MANAGEMENT

OB1 Determine whether content is relevant to the purpose, the audience, audience needs, user experience, and has an appropriate design for target devices

OB2 Demonstrate knowledge of the scope of work to control project schedule, estimate project cost and conduct planning

OB3 Identify tools and resources for the project

OB4 Identify critical milestones

OB5 Identify target audience, stakeholders, project purpose, and client needs

OB6 Report project status

OC EXPLORE THE INTERACTIVE MEDIA INDUSTRY

OC1 Explain the history of animation, film, and gaming

OC2 Understand careers in animation, digital design, and gaming

OC3 Demonstrate knowledge of animation, interactive media, and gaming industry terminology

OC4 Demonstrate knowledge of design methodologies, including but not limited to, design thinking, interaction design, and theories

OC5 Explore advances in devices

OC6 Understand social aspects of the entertainment industry, such as gaming, animation, and film

OC7 Demonstrate knowledge of the XR field, including but not limited to, virtual reality and augmented reality

OD UNDERSTAND FOUNDATIONS OF INTERACTIVE MEDIA

OD1 Demonstrate effective use of flowcharts, storyboards, wireframes, and design concepts to create media elements

OD2 Understand game structure and incorporate industry standard game mechanics

OD3 Produce game design and development documentation

OD4 Understand basic programming language concepts as it relates to gaming and animation

OD5 Demonstrate effective use of technology specific to Media Arts and research technological advances in the field of film, animation, and gaming

OD6 Evaluate, Revise and refine storyboards for effectiveness and feasibility

OD7 Understand the differences between perspective, orthographic, and isometric views

OD8 Given a scenario, identify common preplanning techniques, including design documents, flow charts, animatics, character model sheets, prototyping, storyboarding, concept art, and proportional level scaling

OE EXPLORE PRINCIPLES OF INTERACTIVE MEDIA

OE1 Identify basic principles of multimedia project usability, readability, and accessibility

OE2 Identify and apply animation principles

OE3 Demonstrate and apply interactive media principles

OE4 Demonstrate and apply visual design elements and principles to interactive Media work

OE5 Demonstrate and apply cinematic composition terms and principles

OF CREATE ASSETS FOR INTERACTIVE MEDIA

OF1 Model and create 2D and 3D objects using a variety of tools and techniques

OF2 Build environments and backgrounds for gaming and animation

OF3 Develop a character, including but not limited to, rigging a 2D and 3D character for animation and gaming

OF4 Identify mesh components including vertices, polygon faces, and edges

OF5 Identify basic lighting, including but not limited to, shadows, light settings, and light shapes, such as directional, area, spot, and point

OF6 Create and apply materials, textures, and shaders to 2D and 3D objects, including but not limited to, modifying properties like specular, transparency, normal, and albedo

OF7 Given a scenario, identify how to use scale, rotate, and position modifiers to manipulate an object in a scene

OF8 Create basic UI for mobile, web, gaming, animation, virtual reality, and augmented reality

OF9 Model polygon primitives using a reference image and image plane

OF10 Apply basic UV mapping projections

OF11 Create joints, apply constraints, and paint weights to rig and texture 3D models

OF12 Utilize grids and guides to enhance interactive media work

OF13 Create audio for gaming, animation, and motion graphics

OG UNDERSTANDING PROGRAMMING FOR INTERACTIVE MEDIA

OG1 - Given a scenario, select the appropriate basic C# code to achieve a goal that requires knowledge of properties, variables, methods, basic data types, or binary operators

OG2 - Given a scenario, identify how to handle a collision or trigger event

OG3 Given a problem discovered in playtesting, identify areas to troubleshoot

OG4 Given a code clip (or set of code clips), recognize the comments that accurately describe what the code is doing

OH BUILD AND DESIGN INTERACTIVE MEDIA

OH1 Demonstrate designing for mobile, web, and other devices

OH2 Demonstrate designing motion graphics for social media, marketing, and business needs

OH3 Apply animation to 2D and 3D objects

OH4 Apply lighting and camera techniques to 2D and 3D objects for gaming and animation, including but not limited to, three-point lighting

OH5 Create environmental and animated lighting

OH6 Demonstrate understanding the difference between built-in renderers

OH7 Create and modify keyframes, frames, and playback speed

OH8 Utilize basic techniques to manipulate digital graphics and media within an animation

OH9 Control and configure audio and digital video in a project

OH10 Demonstrate understanding rendering pipelines and which is most appropriate for the project

OH11 Create animated shorts

OH12 Build and market a game

OI UNDERSTAND LEGAL AND ETHICAL ISSUES IN INTERACTIVE MEDIA

OI1 Identify legal and ethical considerations when using third-party content such as copyright, permissions, and licensing

OI2 Apply personal and professional ethics

OI3 Understand security issues in relation to interactive media

OI4 Debate laws and regulations that impact the development and use of software and the protection of privacy

OI5 Identify ethical issues surrounding generative artificial intelligence (AI)

OJ EXPLORE EMERGING TECHNOLOGIES

OJ1 Define essential VR concepts, including but not limited to, how VR differs from other forms of XR, tracking methods, and VR input methods

OJ2 Identify uses for augmented reality and its benefits to society

OJ3 Explore motion capture technologies and how they apply to the entertainment industry

OJ4 Create assets using artificial intelligence (AI)