

# Curriculum Committee



## New Program Proposal

*Note: Before completing this proposal, all core courses for a new program or certificate must have already been reviewed (or submitted for the same meeting) by the Curriculum Committee and approved by the Provost. In addition, the complete catalog page must be included at the end of this document.*

<b>School or Division</b>	School of Arts, Humanities, and Social Sciences
<b>Proposed by (faculty only)</b>	Ryan Wurst
<b>Presenter (faculty only)</b>	Ryan Wurst
Note that the presenter (faculty) listed above must be present at the Curriculum Committee meeting or the proposal will be returned to the School or Division and must be submitted for a later date.	
<b>Submission date</b>	10/7/19

All Curriculum proposals require approval of the Curriculum Committee and the Provost. Final approval or denial of a proposal is reflected on the completed and signed proposal.

Approve

Do Not Approve

Mary R. Myers  
Curriculum Committee Chair Signature

12/10/19  
Date

Approve

Do Not Approve

[Signature]  
Provost Signature

12-12-19  
Date

All Curriculum proposals require review by the Office of Accountability & Effectiveness.

Reviewed

[Signature]  
Office of Accountability & Effectiveness Signature

1/6/2020  
Date

## Section I, Important Dates and Endorsements Required

## Curriculum Committee



### New Program Proposal

**NOTE:** Course and Program changes must be submitted by the dates listed on the published Curriculum Committee Calendar. Exceptions to the published submission deadlines must receive prior approval from the Provost's Office.

<b>Term in which approved action will take place</b>	Fall 2020
<b>Provide an explanation below for the requested exception to the effective date.</b>	
Type in the explanation for exception.	

<b>Any exceptions to the term start date requires the signatures of the Academic Dean and Provost prior to submission to the Dropbox.</b>		
<b>Dean</b>	<b>Signature</b>	<b>Date</b>
Dr. Deborah Teed		10/7/19
<b>Provost</b>	<b>Signature</b>	<b>Date</b>
Dr. Eileen DeLuca		

<b>Required Endorsements</b>	<b>Type in Name</b>	<b>Select Date</b>
<b>Department Chair or Program Coordinator/Director</b>	Professor Dana Roes	10/7/19
<b>Academic Dean or Provost</b>	Type name here	Click here to enter a date.

<b>Library Review:</b> Has the Libraries' Collection Manager been contacted about the new program or certificate and discussed potential impacts to the libraries' collections?
NA

<b>List all faculty endorsements below. (Note that proposals will be returned to the School or Division if faculty endorsements are not provided).</b>
Professor Dana Roes, Dr. Ryan Wurst, Professor Mike Molloy, Professor Steve Chase

### Section II, New Program or Certificate Information (must complete all items)

# Curriculum Committee



## New Program Proposal

<b>List new program or certificate.</b>	Digital Art and Multimedia Production AS
<b>Describe (below) the process by which the need for the new program or certificate was identified. Along with the summary, delineate the parties that have endorsed the new program such as Advisory Board, Faculty, and/or Ad Hoc Committees. Submit Minutes of meetings and endorsements along with this form.</b>	
<p>The necessity for this AS degree initially came from the students' desire to take more classes in the digital arts and multimedia production. While the certificate meets the needs of some, it does not meet the needs for all students. The subject matter of this AS is essential to many digital natives. The future of employment is changing drastically and students who want to become digital content producers must have the skills to work across many digital mediums. They must also become creative producers who can adapt to a constantly changing workforce. We want to provide a program that will give students the tools to become "digital Swiss Army knives." The process for developing this program consisted of several meetings between the supporting faculty members: Professor Dana Roes, Dr. Ryan Wurst, and Professor Mike Molloy.</p>	
<b>Provide a summary of the Program needs analysis.</b>	
<p>The program needs were based on assessing local and national business needs. Conversations were conducted with local businesses about the needs for more digital content creators. Since this industry is also becoming less localized, conversations were conducted with digital arts consultants in cities across the US. It became clear from these conversations that it is essential to train students for the digital content creation workforce.</p>	
<b>Provide a summary of the Salary Levels that graduates of this Program can expect to make.</b>	
<p>Multimedia Artist and Animator: \$72,520 per year <a href="https://www.bls.gov/ooh/arts-and-design/multimedia-artists-and-animators.htm">https://www.bls.gov/ooh/arts-and-design/multimedia-artists-and-animators.htm</a></p> <p>Graphic Designer: \$50,370 per year <a href="https://www.bls.gov/ooh/arts-and-design/graphic-designers.htm">https://www.bls.gov/ooh/arts-and-design/graphic-designers.htm</a></p> <p>Broadcast and Sound Engineering Technicians: \$43,660 per year <a href="https://www.bls.gov/ooh/media-and-communication/broadcast-and-sound-engineering-technicians.htm">https://www.bls.gov/ooh/media-and-communication/broadcast-and-sound-engineering-technicians.htm</a></p> <p>Film and Video Editors and Camera Operators</p>	



**New Program Proposal**

<a href="https://www.bls.gov/ooh/media-and-communication/film-and-video-editors-and-camera-operators.htm">https://www.bls.gov/ooh/media-and-communication/film-and-video-editors-and-camera-operators.htm</a>
<b>Briefly describe the existing resources available needed to implement this new program.</b>
Three faculty members, Dr. Ryan Wurst, Professor Steve Chase and Professor Mike Malloy, will primarily instruct classes in the classes in this program. There are also three spaces in the L building, the digital arts lab, the audio labs, and photo studio, where the classes will be taught.
<b>Briefly describe the additional resources needed to implement this new program.</b>
Perkins funds have been used to successfully launch the certificate programs in Digital Arts and Multimedia Production and in Music Production Technology. For the short term, the needs are minimal and within the scope of the certificate programs already in place. As the AS program grows new technology, space, and faculty will be needed to support the program.
<b>Briefly describe any Program Accreditation required for this program.</b>
NA
<b>Briefly describe any Industry Certification available for student to take during or following completion this program.</b>
NA
<b>Project (below) the average enrollment for core courses.</b>
12 students per class - 50 students per year
<b>Describe (below) how this projection was determined.</b>
We examined the average number of students in existing classes and polled students who would be interested in furthering their multimedia education at FSW.
<b>List (below) similar programs or certificates at other colleges and universities.</b>
<a href="https://www.sfcollege.edu/programs/3620">https://www.sfcollege.edu/programs/3620</a> <a href="https://www.cf.edu/explore/programs/digital-media/">https://www.cf.edu/explore/programs/digital-media/</a> <a href="https://www.gulfcoast.edu/academics/programs/digital-media-production-specialization-bas/index.html">https://www.gulfcoast.edu/academics/programs/digital-media-production-specialization-bas/index.html</a>

**New Program Proposal**

<https://www.hccfl.edu/academics/subjects/information-technology/digital-media-multimedia-game-design>

<https://www.irsc.edu/programs/digital-media-technology.html#digital-media-animation-gaming-and-modeling-concentration-bas>

<https://catalog.valenciacollege.edu/degrees/associateinscience/artsentertainment/digitalmediatechnology/#programrequirements>

**For AS and Certificate Programs:** Attach a Copy of the related FLDOE Curriculum Frameworks. Copy and paste the "Standards" from the FLDOE framework (one standard per row). List the FSW course or courses in which that Standard is taught.

FLDOE Framework	FSW Course or Courses in which standard is taught
1. 01.0 Use industry standard digital media/multimedia hardware and software – the student will be able to:	
1. 01.01 Demonstrate the proper care and handling of equipment used in digital media/multimedia.	All Program Core Courses meet this standard
01.02 Perform pre- and post-production routines with digital media/multimedia hardware and software.	All Program Core Courses meet this standard
01.03 Analyze equipment performance to meet industry standards.	All Program Core Courses meet this standard
02.0 Create, alter and/or adjust presentations utilizing a variety of digital media/multimedia technologies – the student will be able to:	
02.01 Analyze the strengths and weaknesses of presentational media.	All Program Core Courses meet this standard

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02.02 Demonstrate the ability to locate appropriate production resources.	All Program Core Courses meet this standard
02.03 Utilize production techniques to create production outcomes.	All Program Core Courses meet this standard
02.04 Adapt learned skills and generate new approaches in order to solve unique production problems.	All Program Core Courses meet this standard
03.0 Design and generate still imagery/graphics – the student will be able to:	
03.01 Capture, manipulate and apply a still imagery/graphics in a digital media/multimedia project.	ART 2600C - Introduction to Electronic Art PGY1800C - Intro To Digital Photography DIG 2118C - Digital Graphic Design DIG 2100C - Web Design I
03.02 Differentiate and optimize still image formats.	ART 2600C - Introduction to Electronic Art PGY1800C - Intro To Digital Photography DIG 2118C - Digital Graphic Design DIG 2100C - Web Design I
03.03 Apply elements of design, principles of composition and qualities of light to still images/graphics in a digital media/multimedia project.	ART 2600C - Introduction to Electronic Art PGY1800C - Intro To Digital Photography DIG 2118C - Digital Graphic Design DIG 2100C - Web Design I
03.04 Understand the properties of light and how to measure its intensity and color.	PGY1800C - Intro To Digital Photography
03.05 Integrate the use of photographic special effects for a digital media/multimedia production.	ART 2600C - Introduction to Electronic Art PGY1800C - Intro To Digital Photography ART 2601C - Intermediate Computer Art
03.06 Evaluate photographic quality using appropriate application.	PGY1800C - Intro To Digital Photography FIL 2432C - Filmmaking I
04.0 Design and generate video and/or animations in a multimedia project – the student will be able to:	



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<p><b>04.01</b> Capture, manipulate and apply a video and/or animation image in a digital media/multimedia project.</p>	<p>ART 2600C - Introduction to Electronic Art            FIL 2432C - Filmmaking I            ART 2616C - Digital Art and Animation            ART 2601C - Intermediate Computer Art            DIG2974 Digital Art and Multimedia Capstone</p>
<p><b>04.02</b> Differentiate and optimize video and/or animation formats.</p>	<p>DIG 2318C - Animation Studio            ART 2601C - Intermediate Computer Art            TPA 1252 - Introduction to Audio Visual Technology</p>
<p><b>04.03</b> Apply elements of design, principles of composition and qualities of light to video and/or animation in a digital media/multimedia project.</p>	<p>ART 2600C - Introduction to Electronic Art            FIL 2432C - Filmmaking I            ART 2616C - Digital Art and Animation            ART 2601C - Intermediate Computer Art            DIG 2972 Digital Art and Multimedia Capstone</p>
<p><b>04.04</b> Integrate the use of video special effects into digital media/multimedia project.</p>	<p>ART 2600C - Introduction to Electronic Art            FIL 2432C - Filmmaking I            ART 2616C - Digital Art and Animation            ART 2601C - Intermediate Computer Art            DIG 2972 Digital Art and Multimedia Capstone</p>
<p><b>04.05</b> Evaluate moving image quality using appropriate application standards.</p>	<p>ART 2600C - Introduction to Electronic Art            TPA 1252 - Introduction to Audio Visual Technology            FIL 2432C - Filmmaking I            ART 2616C - Digital Art and Animation            ART 2601C - Intermediate Computer Art            DIG 2318C - Animation Studio</p>
<p><b>04.06</b> Shoot and edit video or create animation to production specifications.</p>	<p>ART 2600C - Introduction to Electronic Art            FIL 2432C - Filmmaking I            ART 2616C - Digital Art and Animation            ART 2601C - Intermediate Computer Art            DIG 2318C - Animation Studio</p>
<p><b>04.07</b> Understand the properties of light and how to measure its intensity and color.</p>	<p>FIL 2432C - Filmmaking I</p>

New Program Proposal

<p><b>05.0</b> Design and execute audio technology for a digital media/multimedia project – the student will be able to:</p>	
<p><b>05.01</b> Capture, manipulate and apply audio and sound in a digital media/multimedia project.</p>	<p>ART 2600C - Introduction to Electronic Art MUS 2630 - Introduction to Technology in Music MUM 2600C - Basic Audio Recording Techniques</p>
<p><b>05.02</b> Differentiate and optimize formats for audio and sound.</p>	<p>ART 2600C - Introduction to Electronic Art MUS 2630 - Introduction to Technology in Music MUM 2600C - Basic Audio Recording Techniques TPA 1252 - Introduction to Audio Visual Technology</p>
<p><b>05.03</b> Evaluate production needs for microphone applications.</p>	<p>MUS 2630 - Introduction to Technology in Music</p>
<p><b>05.04</b> Demonstrate proficiency with a multi-channel audio mixer.</p>	<p>MUS 2630 - Introduction to Technology in Music</p>
<p><b>05.05</b> Generate strategies for electronic editing.</p>	<p>MUS 2630 - Introduction to Technology in Music MUM 2600C - Basic Audio Recording Techniques</p>
<p><b>05.06</b> Generate strategies for multi-track recording to industry standards.</p>	<p>MUS 2630 - Introduction to Technology in Music</p>
<p><b>05.07</b> Interpret the applications of copyright laws as they apply to prerecorded materials.</p>	<p>MUS 2630 - Introduction to Technology in Music</p>
<p><b>06.0</b> Use computer applications for digital media/multimedia projects – the student will be able to:</p>	
<p><b>06.01</b> Demonstrate a basic proficiency with digital media/multimedia software packages.</p>	<p>All Program Core Courses meet this standard</p>
<p><b>06.02</b> Design and produce digital media/multimedia content.</p>	<p>All Program Core Courses meet this standard</p>
<p><b>06.03</b> Test, edit and de-bug digital media/multimedia content.</p>	<p>All Program Core Courses meet this standard</p>



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### New Program Proposal

06.04 Present digital media/multimedia content.	All Program Core Courses meet this standard
07.0 Produce digital media/multimedia projects – the student will be able to:	
07.01 Assess the needs of the end user or client.	All Program Core Courses meet this standard
07.02 Analyze available resources.	All Program Core Curriculum and IDS 2141 – Exploring Emerging Technologies meet this standard
07.03 Select and apply appropriate media.	All Program Core Curriculum and IDS 2141 – Exploring Emerging Technologies meet this standard
07.04 Create the written form of a story appropriate to the media selected.	FIL 2432C - Filmmaking I ART 2616C - Digital Art and Animation DIG2711C - Game Design and Gameplay DIG 2318C - Animation Studio
07.05 Create and prepare a storyboard appropriate to the media selected.	FIL 2432C - Filmmaking I ART 2616C - Digital Art and Animation DIG2711C - Game Design and Gameplay DIG 2318C - Animation Studio
07.06 Design navigational structure for interactive environments.	DIG2711C - Game Design and Gameplay DIG 2721C - Applied Game Design I
07.07 Organize resources and personnel to implement production.	All Program Core Courses meet this standard
07.08 Synthesize component elements of available digital media/multimedia technologies into a unified project.	All Program Core Courses meet this standard
07.09 Appraise the quality and end user application of finished project.	All Program Core Curriculum and IDS 2141 – Exploring Emerging Technologies meet this standard

New Program Proposal

<p>07.10 Create computer code appropriate for interactive media projects.</p>	<p>ART 2600C - Introduction to Electronic Art                  ART 2616C - Digital Art and Animation                  DIG 2118C - Digital Graphic Design                  ART 2601C - Intermediate Computer Art                  DIG2711C - Game Design and Gameplay                  DIG 2972 Digital Art and Multimedia Capstone                  DIG 2626C - Artificial Intelligence                  DIG 2100C - Web Design I</p>
<p>08.0 Demonstrate appropriate communication skills – the student will be able to:</p>	
<p>08.01 Write logical and understandable statements, or phrases, to accurately fill out forms/invoices commonly used in business and industry.</p>	<p>ENC1101 - Composition I                  MAC1105 - College Algebra                  DIG 2972 Digital Art and Multimedia Capstone</p>
<p>08.02 Read and understand graphs, charts, diagrams, and tables commonly used in this industry/occupation area.</p>	<p>ENC1101 - Composition I                  MAC1105 - College Algebra                  IDS 2141 - Exploring Emerging Technologies                  DIG 2972 Digital Art and Multimedia Capstone</p>
<p>08.03 Read and follow written and oral instructions.</p>	<p>All General Education and Program Core Courses meet this standard</p>
<p>08.04 Answer and ask questions coherently and concisely.</p>	<p>All General Education and Program Core Courses meet this standard</p>
<p>08.05 Read critically by recognizing assumptions and implications and by evaluating ideas.</p>	<p>All General Education and Program Core Courses meet this standard</p>
<p>08.06 Demonstrate appropriate communication skills.</p>	<p>All General Education and Program Core Courses meet this standard</p>
<p>09.0 Demonstrate appropriate math skills – the student will be able to:</p>	

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### New Program Proposal

09.01 Solve problems for volume, weight, area, circumference, proportions, and perimeter measurements for rectangles, squares, and cylinders.	MAC1105 - College Algebra
09.02 Add, subtract, multiply and divide using fractions, decimals, and whole numbers.	MAC1105 - College Algebra
09.03 Determine the correct purchase price, to include sales tax for a materials list containing a minimum of six items.	MAC1105 - College Algebra DIG 2972 Digital Art and Multimedia Capstone
10.0 Demonstrate employability skills – the student will be able to:	
10.01 Create and write a résumé and cover letter.	DIG 2972 Digital Art and Multimedia Capstone
10.02 Prepare and develop a portfolio, to be presented in appropriate format for medium.	Many courses will meet this, but DIG 2972 Digital Art and Multimedia Capstone is designed for this purpose
10.03 Identify acceptable work habits.	All Program Core Courses meet this standard
10.04 Demonstrate competence in job interview techniques.	DIG 2972 Digital Art and Multimedia Capstone
10.05 Formulate strategy for job search, employment and career after graduation.	DIG 2972 Digital Art and Multimedia Capstone
10.06 Demonstrate knowledge of the Federal Hazard Communication regulation (29 CFR 1910.1200).	TPA 1252 - Introduction to Audio Visual Technology

Include complete new catalog page as an attachment. Proposals without the new catalog page will not be reviewed by the committee.

Section III, Personnel and Resources Needed (add rows as necessary)



# Curriculum Committee



## New Program Proposal

Faculty position(s) (List discipline)	Full time or adjunct?	Total annual expenses
Digital Arts Professor	Full time	Existing
Photography and Film Professor	Full time	Existing
Music Technology Professor	Full time	Existing
Future Digital Arts Professor	Preferably Full but adjunct can work initially	Perkins Funding \$49k
Staff position(s) (List title)	Full time or part time?	Total annual expenses
<p><b>Describe (below) library resources needed to support this program or certificate. Explain rationale for response, even if answer is none.</b></p>		
<p>No additional library resources are needed to support this program at this time.</p>		
<p><b>Describe (below) the technology, facilities, laboratory, or other resources needed to support this program or certificate.</b></p>		
<p>As this program grows, significant dedicated resources will be required to fund technology purchases and maintenance. As the program grows new spaces, such as labs will be required for students to utilize resources. In order to ensure students complete the program in a timely manner, we will need to hire new faculty.</p>		
<p><b>List (below) the estimated annual amount required for educational materials and supplies or other operating expenses for implementation of the new program or certificate.</b></p>		
<p>Currently all software and technologies are met to initiate this program, but future funding will be necessary.</p>		
<p><b>Identify (below) the funding source to be used for personnel and operating expenses.</b></p>		
<p>Perkins Grant</p>		

### Section III, Justification for proposal

**Provide justification (below) for this proposed curriculum action.**

## Curriculum Committee



### New Program Proposal

The field of digital content creation is constantly expanding and requires personnel who are ready to create, alter and produce new projects in the digital and multimedia arts. While this course is a necessity from the industry perspective, it is also one that the students at FSW are already demanding. Our student population want to become “digital Swiss Army knives.” They want the skills to create digital projects and to then make a living from those skills.

## **Associate of Science Digital Art and Multimedia Production**

### **Purpose:**

The Associate in Science (AS) in Digital Arts and Multimedia Production program provides a pathway to the skills and training for professional work in the expanding digital content creation industry. The sequence of courses prepares students to communicate, produce, and utilize industry standard technical training in the creation of digital and multimedia content.

Students will create, edit, and produce digital content to prepare them for further education and careers in the fields of Games and Interactivity Production, Music Production and Sound Engineering, Digital Photography, Filmmaking, Animation, and Graphic Design. As the creative digital industry is in a state of constant flux students will be introduced to avenues for adapting to and engaging with the ongoing changes in the marketplace. Students will gain experience in many areas of digital art and multimedia production and will be prepared to enter industry or create their own career pathways. This program is designed for full-time and part-time students.

### **Learning Outcomes:**

Graduates of the program will be able to:

1. Demonstrate a technical and creative understanding of industry hardware and software related to digital art and multimedia production.
2. Create and adjust digital art and multimedia presentations in a variety of areas.
3. Design and create still imagery through digital photography and graphic creation techniques.
4. Produce creative video and animated content.
5. Utilize audio technology to aid in the creation of digital art and multimedia.
6. Utilize all aspects of computer applications from coding to software manipulation in order to create new projects.
7. Demonstrate the skills to communicate and effectively work in a team.
8. Develop mathematical skills that will inform the proper use of hardware and software in digital art and multimedia production.
9. Build a professional portfolio and demonstrate the skills needed to become employed in the industry.

### **Program Structure:**

This program is a planned sequence of instruction consisting of 60 credit hours in the following areas: 18 credit hours of General Education Requirements and 42 credit hours of Digital Art and Multimedia Production Core Requirements (which includes 12 credit hours of primary courses and 30 credit hours of advanced courses).

### **Course Prerequisites:**

**Many courses require prerequisites.** Check the description of each course in the list below to check for prerequisites, minimum grade requirements, and other restrictions related to the course. Students must complete all prerequisites for a course prior to registering for it.



## **Graduation:**

Students must fulfill all requirements of their program major in order to be eligible for graduation. Students must indicate their intention to attend commencement ceremony, by completing the Commencement Form by the published deadline. All courses must be completed with a "C" or better.

## **Courses in Program:**

### **General Education Requirements (18 credits total)**

#### **Communication Course**

ENC1101 - Composition I (3 credits)

#### **Mathematics Course**

Any Mathematics General Education Course (3 credits)

#### **Humanities Courses**

FIL1000 - Film Appreciation (3 credits)

IDS 2141 - Exploring Emerging Technologies (3 credits)

#### **Social Science Course**

Any 1000 or 2000 Gen Ed course (3 credits)

#### **Elective Course**

Any 1000 or 2000 level Course (3 credits)

### **Digital Art and Multimedia Production Course Requirements (42 credits total)**

#### **Primary Courses**

ART 2600C - Introduction to Electronic Art (3 credits) - **Prerequisite for Advanced ART & DIG**

PGY1800C - Intro To Digital Photography (3 credits)

MUS 2630 - Introduction to Technology in Music (3 credits) - **Prerequisite for Advanced MUM**

TPA 1252C - Introduction to Audio Visual Technology (3 credits)

#### **Advanced Courses**

ART 2616C - Digital Art and Animation - (3 Credits) **Prerequisite for DIG2318C**

ART 2601C - Intermediate Computer Art (3 Credits)

DIG 2118C - Digital Graphic Design - (3 credits)

DIG 2711C - Game Design and Gameplay (3 credits)

DIG 2100C - Web Design I - (3 credits)

DIG 2318C - Animation Studio (3 credits)

DIG 2626C - Artificial Intelligence (3 credits)

DIG 2972C - Digital Art and Multimedia Capstone (3 credits)  
FIL 2432C - Filmmaking I (3 credits)  
MUM 2600C - Basic Audio Recording Techniques (3 credits)

**Course Sequence:**

**1st Term:**

ENC1101 - Composition I (3 credits)  
Any 1000 or 2000 level course (3 credits)  
ART 2600C - Introduction to Electronic Art (3 credits)  
ART1300C - Drawing I (3 credits)  
PGY1800C - Intro To Digital Photography (3 credits)  
Total: 15 Credits

**2nd Term:**

General Education Mathematics (3 credits)  
TPA 1252 - Introduction to Audio Visual Technology (3 credits)  
MUS 2630 - Introduction to Technology in Music (3 credits)  
FIL 2432C - Filmmaking I (3 credits)  
FIL1000 - Film Appreciation (3 credits)  
Total: 15 Credits

**3rd Term:**

ART 2601C - Intermediate Computer Art (3 Credits)  
DIG 2118C - Digital Graphic Design - (3 credits)  
IDS 2141 - Exploring Emerging Technologies (3 credits)  
DIG2711C - Game Design and Gameplay (3 credits)  
ART 2616C - Digital Art and Animation - (3 Credits)  
Total: 15 Credits

**4th Term:**

DIG 2318C - Animation Studio (3 credits)  
MUM 2600C - Basic Audio Recording Techniques (3 credits)  
DIG 2972 - Digital Art and Multimedia Capstone (3 credits)  
DIG 2100C - Web Design I - (3 credits)  
DIG 2626C - Artificial Intelligence (3 credits)  
Total: 15 Credits

## Web developers

**Title** Job Zone Three: Medium Preparation Needed

**Education** Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree.

**Related Experience** Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.

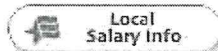
**Job Training** Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers. A recognized apprenticeship program may be associated with these occupations.

**Job Zone Examples** These occupations usually involve using communication and organizational skills to coordinate, supervise, manage, or train others to accomplish goals. Examples include hydroelectric production managers, travel guides, electricians, agricultural technicians, barbers, court reporters, and medical assistants.

**SVP Range** (6.0 to < 7.0)

**Median wages (2018)** \$33.38 hourly, \$69,430 annual

**State wages**

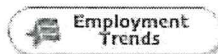


**Employment (2018)** 161,000 employees

**Projected growth (2018-2028)** ■■■■ Much faster than average (11% or higher)

**Projected job openings (2018-2028)** 15,100

**State trends**

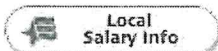


**Top industries (2018)** Professional, Scientific, and Technical Services

Multimedia Artists and Animators

**Median wages (2018)** \$34.87 hourly, \$72,520 annual

**State wages**



**Employment (2018)** 72,000 employees



Projected growth (2018-2028) ■■■■ Average (4% to 6%)

Projected job openings (2018-2028) 8,300

State trends 

Top industries (2018) Information  
Professional, Scientific, and Technical Services

Graphic designers

## Wages & Employment Trends

Median wages (2018) \$24.21 hourly, \$50,370 annual

State wages 

Employment (2018) 290,000 employees

Projected growth (2018-2028) ■■■■ Slower than average (2% to 3%)

Projected job openings (2018-2028) 30,300

State trends 

Top industries (2018) Professional, Scientific, and Technical Services  
Manufacturing

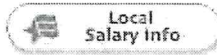
Video Game Designers

## Wages & Employment Trends

Median wages data collected from **Computer Occupations, All Other**.  
Employment data collected from **Computer Occupations, All Other**.  
Industry data collected from **Computer Occupations, All Other**.

Median wages (2018) \$43.40 hourly, \$90,270 annual

**State wages**

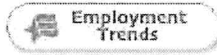


**Employment (2018)** 413,000 employees

**Projected growth (2018-2028)** ■■■ Faster than average (7% to 10%)

**Projected job openings (2018-2028)** 35,700

**State trends**



**Top industries (2018)** Professional, Scientific, and Technical Services  
Government