

**Wayne Community College
Program Review and Outcome Assessments, 2020-21
(Previous Program Review Cycle, 2017-18)**

Name of Program: Simulation and Game Development

Section 1: Program Overview

Mission/Purpose: *As part of the review cycle, programs are asked to formally evaluate their mission/purpose statement.*

Please provide your current mission/purpose statement.

The mission of the IST Department is to provide graduates the skills for employment in diverse computer technology environments.

Provide narrative for the analysis of the mission/purpose statement. *(Are you planning to revise your mission/purpose statement? If so, please provide your revised mission/purpose statement and reason for the change.)*

The Simulation and Game Development curriculum provides a broad background in simulation and game development with practical applications in creative arts, visual arts, audio/video technology, creative writing, modeling, design, programming, and management.

The current mission/purpose statement accurately reflects the aims of the department's work.

Describe how the program's mission aligns with the College's vision, mission, core values, and strategic goals. Identify which Institutional Goal(s) best aligns with your program and explain why.

- Goal 1: Increase Student Access**
- Goal 2: Ensure Program Excellence**
- Goal 3: Improve Student Success**
- Goal 4: Ensure Institutional Quality**

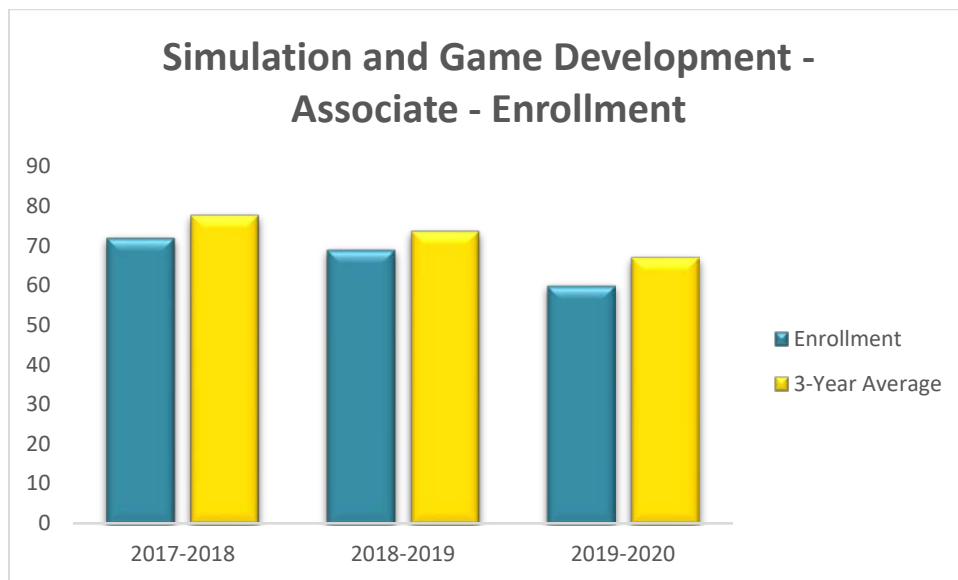
The department's mission directly correlates to the College's vision, mission, core values, and strategic goals. The core values are directly woven into the curriculum and taught to students and modeled to them from the moment they enter the program. "Student access" is increased by making courses online or during times and days that increase accessibility. Faculty take great measures to ensure textbooks and other learning materials are free or low cost. Instructors "ensure program excellence" by examining rigor, relevance, and quality each semester in all of their courses. This is intensified by the feedback from the advisory committee to ensure the content is up-to-date, competitive, and relevant to the world of work--there is a continuous effort to "improve student success". All program faculty are keenly aware that remote learning provides the global community many options for learning; hence, each faculty member makes great strides to ensure WCC is the preferred choice for quality education and training.

Associates, Diplomas, Certificates, and Pathways Offered: Utilizing the table below, list all associates, diplomas, certificates, and pathways offered.

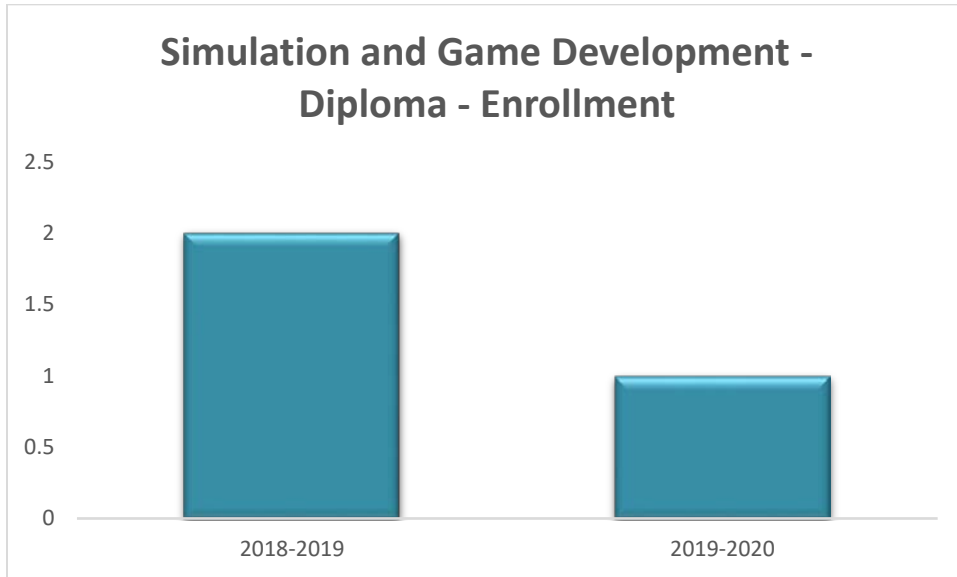
Program Type (Associate, Diploma, Certificate, or Pathway)	Program Title
Associate	Simulation and Game Development A25450
Certificate	Level Design for Simulation and Game Development C25450L
Certificate	Mobile Game Development C25450MG
Certificate	Modeling and Animation C25450MA
Certificate	Production for Simulation and Game Development C25450PN
Certificate	Simulation and Game Development C25450

Program Enrollment (Academic Year - Fall, Spring, Summer) – for each degree level (Associate, Diploma, Certificate, and Pathway)

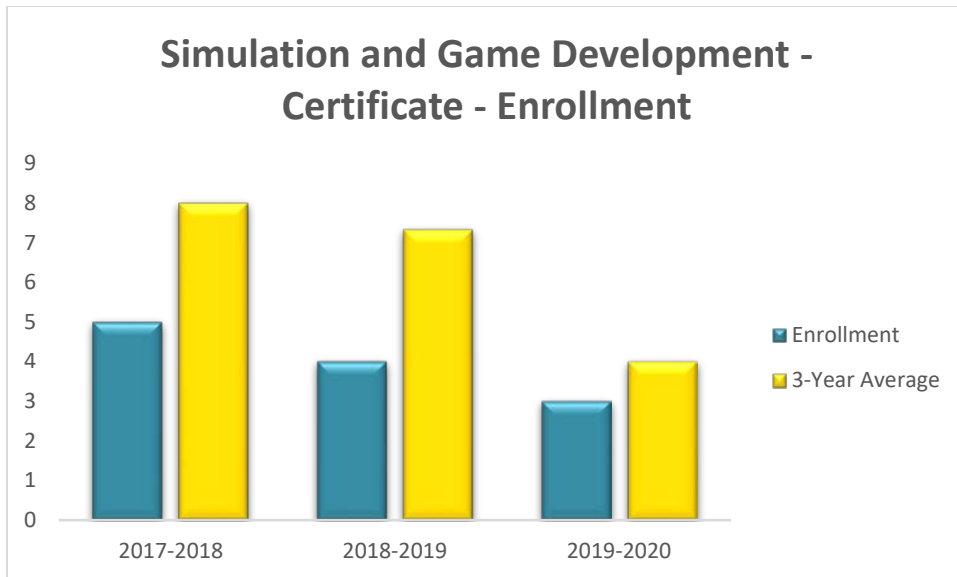
Program Enrollment (Associate) (unduplicated)		
Academic Year (Fall, Spring, Summer)	Enrollment	3-Year Average
2017-2018	72	78
2018-2019	69	74
2019-2020	60	67



Program Enrollment (Diploma) (unduplicated)		
Academic Year (Fall, Spring, Summer)	Enrollment	3-Year Average
2018-2019	2	---
2019-2020	1	---



Program Enrollment (Certificate) (unduplicated)		
Academic Year (Fall, Spring, Summer)	Enrollment	3-Year Average
2017-2018	5	8
2018-2019	4	7
2019-2020	3	4

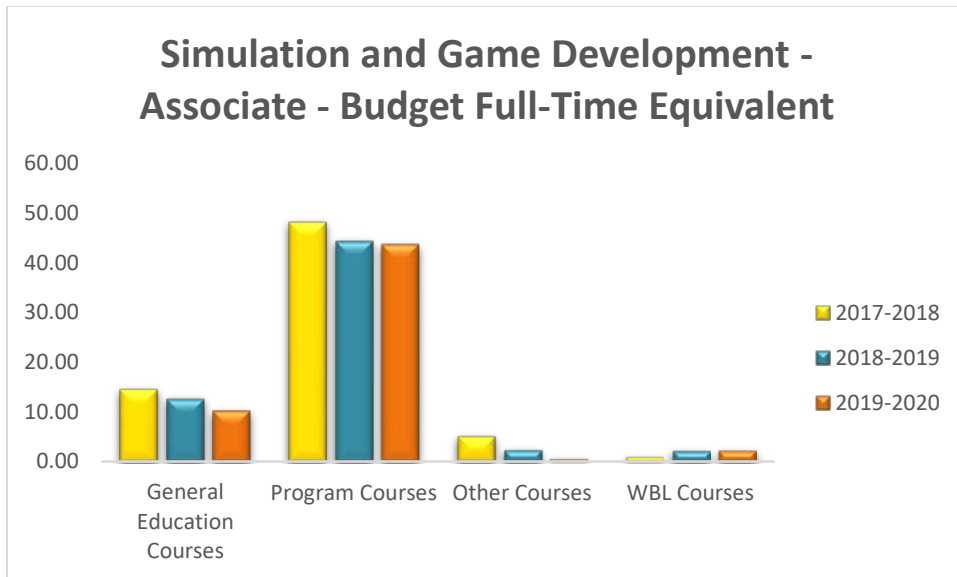


Provide narrative for analysis of program enrollment. *(Is enrollment increasing or decreasing? What are possible reasons for increase/decrease? Describe any plans to improve or increase program enrollment.)*

Enrollment decreased during the review period. This is likely due to multiple factors such as improvements in the economy, high graduation rates and the addition of the Software Development program which offers participants training in multiple programming languages outside of the typical scope of Simulation and Game Development. In addition to enhanced marketing plans, the splitting of the Simulation and Game Development program into the Game Art and Animation degree and the Game Programming and Automation degree should prove beneficial to students wishing to specialize in a particular area of game development. Enrollment in certificates and the diploma is minimal compared to enrollment in the degree program because incoming students are typically enrolled in the degree as their primary program and certificates as secondary programs.

Program Budget Full-Time Equivalent (BFTE) (Academic Year - Fall, Spring, Summer) – (highest level only)

Academic Year (Fall, Spring, Summer)	General Education Courses	Program Courses	Other Courses	WBL Courses	Total
2017-2018	14.63	48.16	5.28	1.00	69.07
2018-2019	12.79	44.38	2.50	2.28	61.95
2019-2020	10.44	43.72	0.69	2.38	57.23
Total	37.86	136.26	8.47	5.66	188.25



Analysis of program budget full-time equivalent (BFTE) (What is the program budget FTE data indicating? Is the program budget FTE increasing or decreasing? What are possible reasons for increase/decrease? Describe any plans to increase program budget FTE.)

BFTE dropped slightly from the 2017-2018 academic year, yet has remained consistent since. The best method to increase BFTE is to increase enrollment. By splitting the program into two different specializations the department can better market each program to the specific target audience. The program lead instructor will grow partnerships with employers to expand WBL enrollment.

Activities to ensure program is current (2017-18; 2018-19; 2019-20 – Academic Year, Fall, Spring, Summer)

List program curriculum changes, revisions, and/or deletions.

Course Title	Date – Updated / Revised / Deleted
CTS 120	Fall 2017; added to Simulation and Game Development Degree A25450
CTS 120	Fall 2017; added to Simulation and Game Development Diploma D25450
SGD 135	Fall 2017; added to Simulation and Game Development Degree A25450
SGD 135	Fall 2017; added to Simulation and Game Development Diploma D25450
SGD 159	Fall 2017; added to Simulation and Game Development Degree A25450
SGD 159	Fall 2017; added to Simulation and Game Development Diploma D25450

SGD 162	Fall 2017; added to Simulation and Game Development Degree A25450
SGD 162	Fall 2017; added to Simulation and Game Development Diploma D25450
SGD 162	Fall 2017; added SGD 114 prereq
CIS 110	Fall 2017; deleted course from Simulation and Game Development Degree A25450
CIS 110	Fall 2017; deleted course from Simulation and Game Development Diploma D25450
SGD 158	Fall 2017; deleted course from Simulation and Game Development Degree A25450
SGD 158	Fall 2017; deleted course from Simulation and Game Development Diploma D25450
SGD 168	Fall 2017; deleted course from Simulation and Game Development Degree A25450
SGD 168	Fall 2017; deleted course from Simulation and Game Development Diploma D25450
Level Design for Simulation and Game Development (C25450L)	Fall 2018, added certificate
Mobile Game Development (C25450MG)	Fall 2018, added certificate
Modeling and Animation (C25450MA)	Fall 2018, added certificate
Production for Simulation and Game Development (C25450PN)	Fall 2018, added certificate
Programming for Simulation and Game Development (C25450PG)	Fall 2018, added certificate
Quality Assurance for Simulation and Game Development (C25450Q)	Fall 2018, added certificate

Provide an overview of the significance of the program changes and improvements that occurred over the past three years. *(What were the program's / discipline's goals and rationale for expanding and improving student learning, including new courses, program degrees, certificates, diplomas, and/or delivery methods?)*

The Simulation and Game Development degree program is now split into two different programs to meet the needs of students wishing to specialize in either the art side of game development or the programming side. By creating the new Game Art and Animation (A25450A) degree, students are able to take additional art-based simulation and game development courses. The Game Programming and Automation (A25450P) degree provides additional programming courses for students wishing to specialize as a game programmer or working in the field of automation programming. Existing courses were added to the Simulation and Game Development degree

(A25450) and some courses were removed to add additional courses teaching Unity 3D and to remove courses focused solely on subjects such as Mobile App Development and Virtual Reality. With advancements in game engines and technology, those topics no longer required their own courses as exporting to a mobile app became possible within multiple game engines rather than the need to make programs specifically for mobile app devices and VR hardware became more mainstream and affordable that game engines now also provided means to create apps for VR and AR development. When the original Simulation and Game Development degree split into two different degrees it was necessary to remove some courses and add existing courses to these programs to specialize them. Game Art courses were added to the Game Art and Automation Degree (A25450A) and Programming courses were removed from it. The opposite occurred for the Game Programming and Automation Degree (A25450P).

Advisory Committee: dates, summary of minutes, activities (2017-18; 2018-19; 2019-20 – Academic Year – Fall, Spring, Summer)

Summary of Advisory Committee Activities

Year	Meeting Dates	Recommendations / Activities
2017-2018	Oct 26, 2017; Mar 29, 2018	The fall meeting covered current industry needs, future industry needs, troubleshooting skills, and content recommended for CSC 151/251, CSC 289, CTI 115, SEC 160, SEC 175, SEC 285. The spring meeting focused on general employee soft skills. Refer to meeting minutes on file for more details.
2018-2019	Oct 18 - Dec 13, 2018; Mar 28, 2019	The fall meeting discussed recommended content for CTI 120, CTS 120, NET 130, SGD 112, and SGD 113. The spring meeting focused on general employee soft skills. Refer to meeting minutes on file for more details.
2019-2020	Oct 29, 2019; Spring 2020 cancelled because of the pandemic.	The fall meeting covered recommended hard skills for courses related to service desk, tech support, system admin, cybersecurity, storage, and virtualization. During the webinar, there was discussion about the need for updated motion capture technology. Refer to meeting minutes on file for more details.

(Ensure that Advisory Committee Meeting Minutes are filed in the IE Shared Program Folder.)

Provide narrative for analysis of trends in the field or industry (emerging needs) that contribute to maintaining program relevance. *(Based on advisory committee suggestions, environmental scans, and other sources external to the program/discipline, how well is the program/discipline responding to the current and emerging needs of the community? What resources might your program need?)*

Input from advisory members covers a broad range of technologies, hard skills and soft skills. All of these recommendations are directly mapped to current industry trends and expectations. Campus policies, leadership, and funding have allowed the program maximum flexibility to adapt to rapid changes within the industry. Planning objectives are based upon advisory input. As a result, the program learning environment stays aligned with preparing students for workforce needs. The spring advisory committee meeting is a joint meeting with other departments in the division that is held annually. Students are invited to the spring meeting so that they have the

opportunity to connect with employers (advisory members) for potential job placement. The program needs a sound recording booth and area for motion capture recording.

Labor Market Data

Provide narrative for analysis of Labor Market Data. *(Review Labor Market Data provided in the audit data reports and provide an assessment of the data.)*

There is a light job posting demand in Wayne County. The national median salary for the industry is \$71,546 compared to \$116,922 for Wayne County. Regional employment is higher than the national average. An average area of this size typically has 477 jobs; there are 612 in this region. This higher than average supply of jobs may make it easier for students in this field to find employment. The regional compensation is 63% higher than the national average. The top hard skills are Curriculum Development, Online Teaching, Advising, Secondary Education, Language Arts, Data Analysis, Moodle, Nursing, Lesson Planning and Adult Education. The top common skills are Teaching, Written Communication, Multilingualism, Planning, Mentorship, English Language, Communications, Self Starter, Basic Math and Management. Retirement risk is average in Wayne County. Racial diversity is low in Wayne County. Gender diversity is about average in Wayne County. The majority of occupation by age breakdown is 14-18 (0.2%), 19-24 (8.7%), 25-34 (17.6%), 35-44 (19.1%), 45-54 (17.4%), 55-64 (23.8%) and 65+ (13.2%). The majority of occupation race/ethnicity breakdown is White (78.8%), Black (10.9%), Asian (5.4%), and Hispanic or Latino (3.3%). The occupation gender breakdown is 49% male and 51% female.

Section 2: Faculty Profile

Have all faculty credentials been verified? *(Verify required documents are in personnel files.)*

Yes No

List of Faculty and Status (2017-18; 2018-19; 2019-20 – Academic Year – Fall, Spring, Summer)

Faculty / Name	Full-Time / Part-Time	Total Years within Department/Program	Total Years at WCC
Andrew Sanders	FT	5	9
Caitlin Foss	PT	6	6
Cynthia Kaye	FT	3	3
David Vinciguerra	FT	11	11
Jenneth Honeycutt	FT	4	4
Keosha Faison	PT	3	3
Lindsay Davis	PT	6	6
Shana Norris	PT	5	5
Thomas Hopfer	FT	3	3
Whitney Joyner	PT	6	6

Provide narrative for adequacy of faculty numbers. *(Do you have enough faculty to support your program?)*

Courses are taught by full-time and adjunct faculty. Adjunct faculty members are hired on an as-needed basis. The faculty members are adequate for the courses taught in the program.

Faculty Contact and Credit Hours

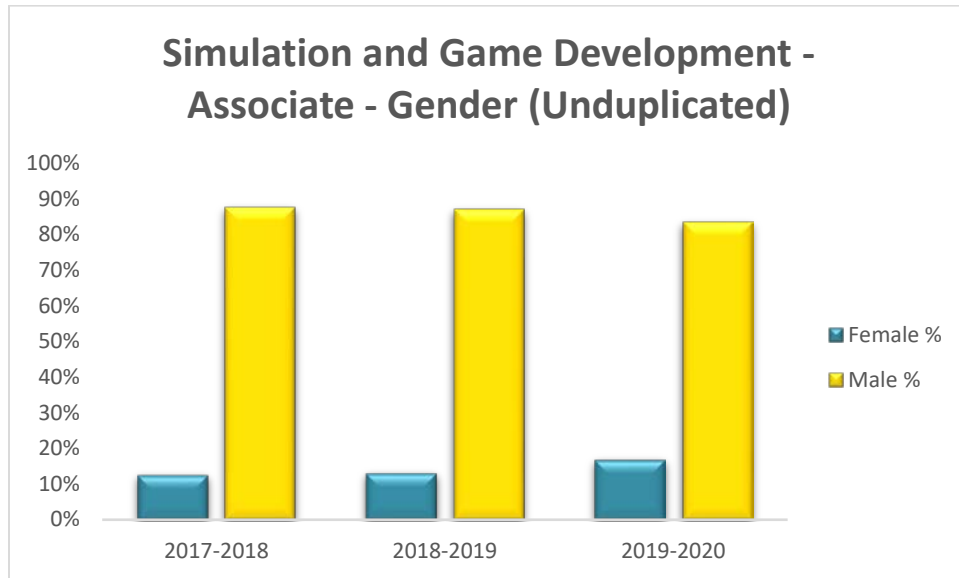
Faculty / Name	Full-Time	Fall 2017		Spring 2018		Summer 2018	
	Part-Time	Contact	Credit	Contact	Credit	Contact	Credit
Whitney Joyner	PT	8	6	5	3		
Lindsay Davis	PT	8	6	5	3		
Shana Norris	PT	4	3	0	0		
Andrew Sanders	FT	20	12	20	12		
David Vinciguerra	FT	16	10	15	9	11	9
Caitlin Foss	PT						

Faculty / Name	Full-Time	Fall 2018		Spring 2019		Summer 2019	
	Part-Time	Contact	Credit	Contact	Credit	Contact	Credit
David Vinciguerra	FT	15	9	16	10	8	6
Caitlin Foss	PT	5	3				
Cynthia Kaye	PT	5	3	10	6		
Keosha Faison	PT	4	3				
Thomas Hopfer	FT	19	12	20	12	3	3
Jenneth Honeycutt	FT	1	1				

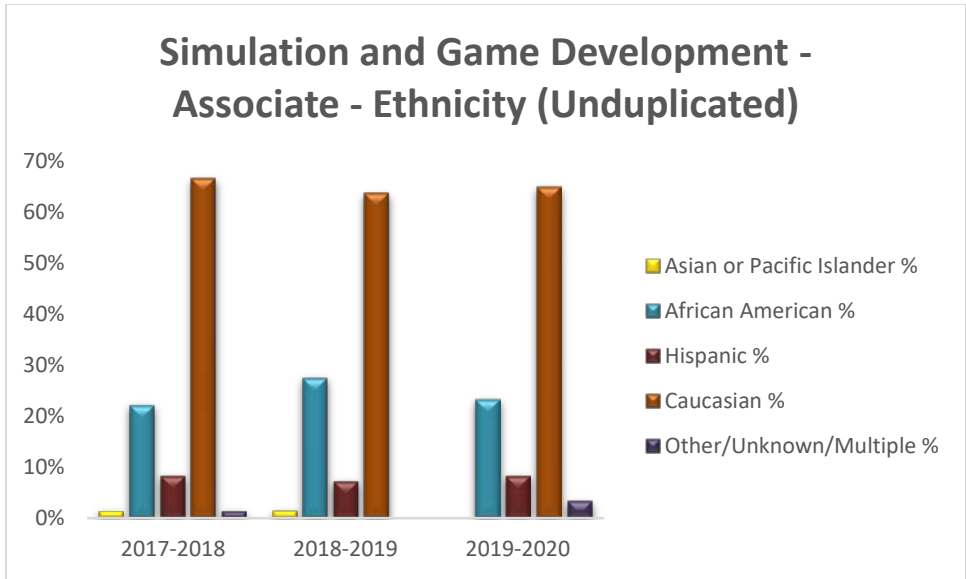
Faculty / Name	Full-Time	Fall 2019		Spring 2020		Summer 2020	
	Part-Time	Contact	Credit	Contact	Credit	Contact	Credit
David Vinciguerra	FT	15	10	16	10	8	6
Cynthia Kaye	PT	13	9	15	9		
Thomas Hopfer	FT	19	12	20	12	3	3

Section 3: Student Demographics - Parent program (highest level only) data is provided.

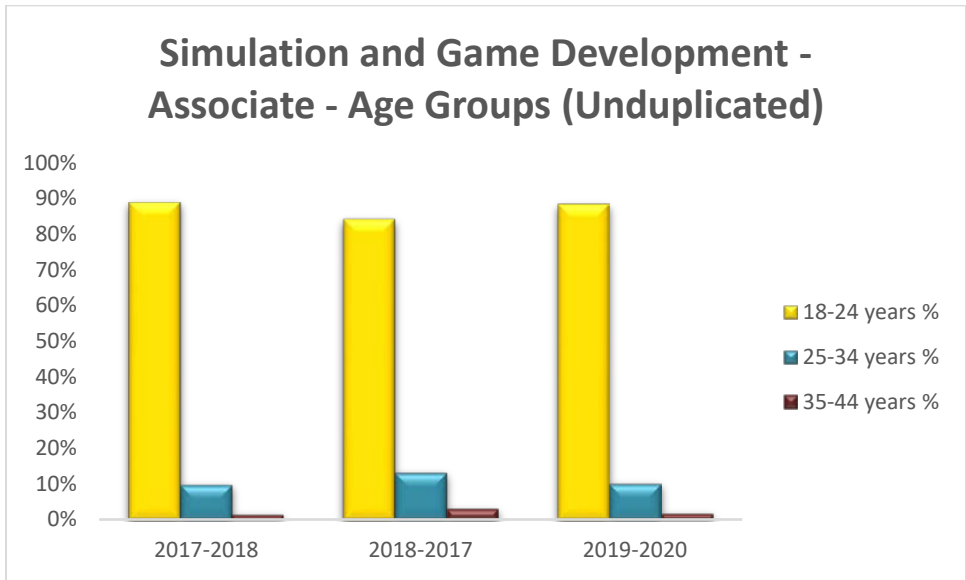
Gender (Associate - unduplicated) Academic Year – Fall, Spring, Summer						
Academic Year	Female		Male		Total	
	N	%	N	%	N	%
2017-2018	9	13%	63	88%	72	100%
2018-2019	9	13%	60	87%	69	100%
2019-2020	10	17%	50	83%	60	100%



Ethnicity (Associate – unduplicated) Academic Year – Fall, Spring, Summer														
Academic Year	American Indian		Asian or Pacific Islander		African American		Hispanic		Caucasian		Other / Unknown / Multiple		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
2017-18	0	0	1	1%	16	22%	6	8%	48	67%	1	1%	72	100%
2018-19	0	0	1	1%	19	28%	5	7%	44	64%	0	0%	69	100%
2019-20	0	0	0	0%	14	23%	5	8%	39	65%	2	3%	60	100%



Age (Associate – unduplicated) Academic Year – Fall, Spring, Summer												
Academic Year	Under 18		18-24 years		25-34 years		35-44 years		45 and older		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
2017-18	0	0	64	89%	7	10%	1	1%	72	100%	64	89%
2018-19	0	0	58	84%	9	13%	2	3%	69	100%	58	84%
2019-20	0	0	53	88%	6	10%	1	2%	60	100%	53	88%



Provide narrative for analysis of student demographics. (How are you recruiting/retaining a diverse population of students? What are some ways you can increase student diversity in your program?)

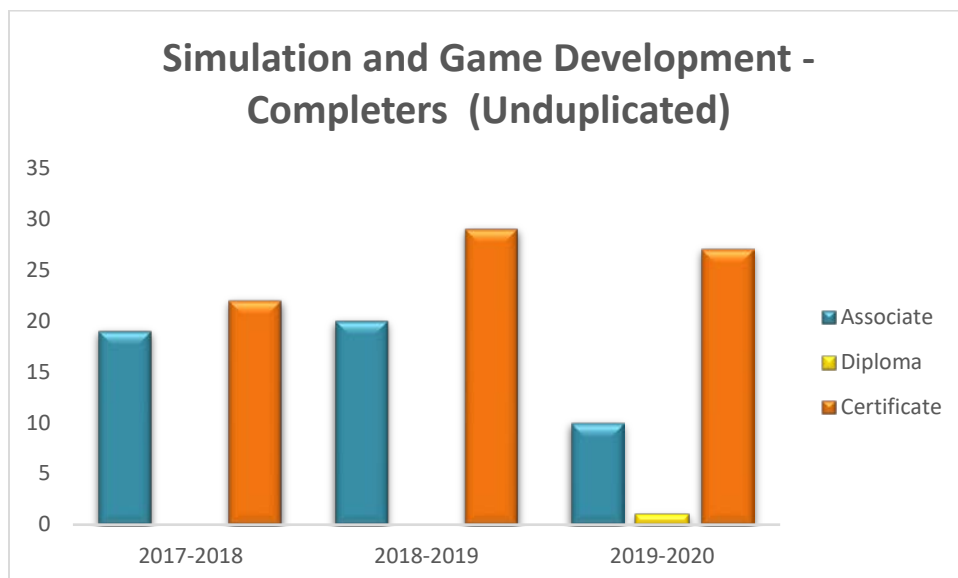
88% of students are in the 18-24 age group, 10% are in the 25-34 age group and 2% are in the 35-44 age group. 83% of the student pool is male and 17% is female. 65% of the student pool is Caucasian, 23% is African American, 8% is Hispanic and 3% is of unknown ethnicity. Instructors are actively recruiting and striving to broaden the participation for female students and underserved populations in STEM. Marketing materials and recruiting events have focused on presenting the industry and the program in a manner that is representative of a range of demographics. The Simulation and Game Design certificate is available for Career and College Promise (CCP) high school students to enroll in while still working towards their high school diploma.

Section 4: Program Outcomes

Outcome #1: Completers (unduplicated) (Degree level, highest level of attainment)

Baseline: 42 (Average of total completers for the last three years – 2017-18; 2018-19; 2019-20)
Standard: 45
Target: 50

Number of Completers (unduplicated) – Graduation Year – Summer, Fall, Spring				
Graduation Year	Associate	Diploma	Certificate	Total
2017-2018	19	0	22	41
2018-2019	20	0	29	49
2019-2020	10	1	27	38



Provide narrative for analysis of completers. *(Based on the data, provide a narrative of your analysis of completions. Indicate factors that may have affected your completions. How might you increase the number of completers in your program?)*

The highest percentage of completers is in the Certificate category with an average of 26.6 across the three academic years. This is due to the number of certificates in comparison to the degree and diploma. During the first two academic years the degree completion was 19 and 20 respectively with the last year being 10. Students are not leaving before finishing the degree because they are already getting jobs. Two consecutive years of high graduation rates in addition to a good economy may have influenced the graduation rate of 2019-2020. Increasing enrollment can increase the graduation rate.

Provide narrative for analysis of completer standard/target. *(Identify standard and target. Standard is the acceptable performance, which must be higher than the baseline; Target is the desired performance, which must be higher than the standard.)*

New completer standard and target was set based on the three-year baseline data from 2017-18, 2018-19 and 2019-20.

The standard has been set at 45 and the target at 50.

Identify Completer Action Items

(Address program outcome assessments that fall below the established standard and/or target and additional recommendations resulting from the review.)

Item	Action Items <i>(Identify action items as a result of your program outcome assessment.)</i>	Target Date <i>(Identify your projected target date for completion of action items.)</i>	Assessment of Action Items <i>(How will you assess the results of action items?)</i>
1	Increase the number of courses available online. This will allow the program to be marketed to a greater population and potentially reach additional students.	Fall 2021	Program advisor will monitor the impact of increasing online course offerings.

Outcome #2: Retention

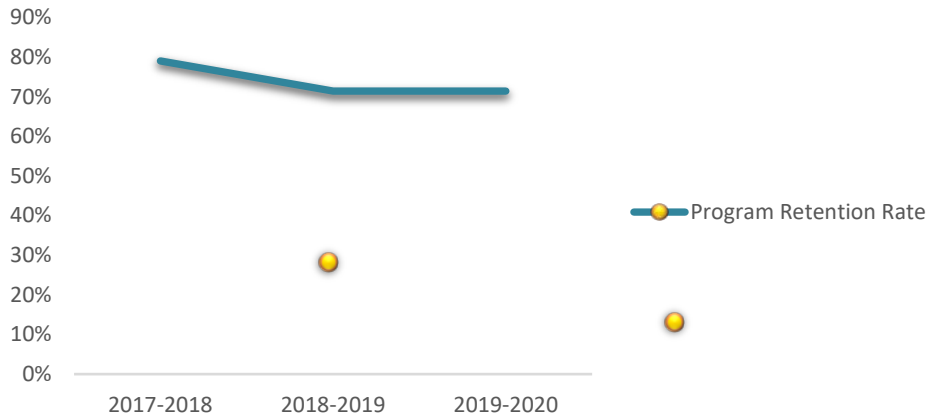
Baseline: 74.0 % (Average of last three years – 2017-18; 2018-19; 2019-20; fall-to-fall program retention)
Standard: 75 %
Target: 80 %

2020-2021 Action / Strategy Items: (carried forward outcomes)

Item #	Action / Strategy Items: <i>(Actions / strategies identified in the 2019-20 program outcome assessment follow-up.)</i>	Results / Use of Results: <i>(Provide results of the action / strategy identified. Was the action / strategy successful? How do you know?)</i>
1	Implement more live and recorded lectures in online courses.	Live lectures and recordings were added to more online courses. In some cases, they were added to hybrid courses too. Video tutorials were successful especially when communicating with students when troubleshooting a problem they may be having with an assignment. Instructor could provide a specific video and time in the video for the student to review that would demonstrate the solution to the student's question. Rather than read a description of what they need to do in email format or hear over the phone, the student could see it demonstrated and watch that portion of the video over if needed.

Year (Fall to Fall)	Program Fall Enrollment Cohort	Program Completers	Program Retained	Program Stop Outs	Program Transfers	Program Retention Rate
Fall 2017-Fall 2018	62	16	33	9	4	79.0%
Fall 2018-Fall 2019	56	17	23	14	2	71.4%
Fall 2019-Fall 2020	49	11	24	11	3	71.4%

Fall-Fall Simulation and Game Development - Associate - Retention Rate



Provide narrative for analysis of program retention data. (Based on the data, provide a narrative of your analysis of fall-to-fall retention. Indicate factors that may have affected your retention. State any changes you plan to make to improve retention.)

Over the three academic years the retention rate remained high. The rate dropped some between the 2017-2018 academic year and the 2018-2019 academic year and then remained the same for the following year. The decrease in retention may be partially impacted by a decreased amount of free lab time available to students. By moving more courses online, the campus lab will have more time available for students as a lower number of classes would need to be taught in the lab space. Even with an increase of online courses, a dedicated open lab for game development students is needed because of the hardware/software required to create simulations and games.

Provide narrative for analysis of program retention standard/target. (Identify standard and target. Standard is the acceptable performance, which must be higher than the baseline; Target is the desired performance, which must be higher than the standard.)

New program retention standard and target was set based on the three-year baseline data from 2017-18, 2018-19, and 2019-20 fall to fall retention.

The standard has been set at 75% and the target at 80%.

Identify Retention Action Items

(Address program outcome assessments that fall below the established standard and/or target and additional recommendations resulting from the review.)

Item	Action Items (Identify action items as a result of your program outcome assessment.)	Target Date (Identify your projected target date for completion of action items.)	Assessment of Action Items (How will you assess the results of action items?)
1	Increase the number of courses available online. This will allow the program to be marketed to a greater	Fall 2021	Program advisor will monitor enrollment growth, retention, and reasons for withdrawals to determine

	population and potentially reach additional students. This will also provide additional open lab time for students to work as less time would be needed in the lab for traditional classes to meet.		the enrollment ratio required to overcome student attrition that negatively impacts retention rates.
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Outcome #3: Program Success Rate (all delivery methods)*(Duplicated based on number of courses taken by students in the program.) (Program Success Rate tab)***Baseline:** 81 % (Average program success students for the last three years – 2017-18; 2018-19; 2019-20)**Standard:** 83 %**Target:** 85 %

Academic Year Fall, Spring, Summer	Program Enrolled Students	Program Success Students	Program Success Rate
2017-2018	339	305	90%
2018-2019	318	252	79%
2019-2020	287	219	76%

Provide narrative for analysis of student success in program courses. *(Are students more successful in program courses in face-to-face, online, hybrid, or blended methods of course delivery? Do you plan to make any changes to course offerings based upon your analysis of the data?)*

2018-2019 success rate was 90%. 2019-2020 success rate decreased to 79% and the 2019-2020 success rate decreased to 76%. Each decrease in success rate was accompanied by a decrease in enrolled students. All courses were taught as hybrid courses except the Spring 2020 courses which moved to synchronous online halfway through the semester. The higher enrollment numbers and high graduation rates of the 2018-2019 academic year appear to play a significant part in program success, whereas there is not currently enough data on the courses being taught online or hybrid to show a significant impact. Based on these numbers and the current educational climate, the number of online classes will continue to increase. This will allow the program to be marketed to a greater population and potentially reach additional students. This will also provide additional open lab time for students to work as less time would be needed in the lab for traditional classes to meet. Tutors for classes that include training in 3D modeling, programming and game engines are needed and would increase the success rate.

Provide narrative for analysis of student success in program courses standard/target. *(Identify standard and target. Standard is the acceptable performance, which must be higher than the baseline; Target is the desired performance, which must be higher than the standard.)*

New program success rate standard and target was set based on the three-year baseline data from 2017-18, 2018-19, and 2019-20.

The standard has been set at 83% and the target at 85%.

Identify Student Success in Program Courses Action Items

(Address program outcome assessments that fall below the established standard and/or target and additional recommendations resulting from the review.)

Item	Action Items <i>(Identify action items as a result of your program outcome assessment.)</i>	Target Date <i>(Identify your projected target date for completion of action items.)</i>	Assessment of Action Items <i>(How will you assess the results of action items?)</i>
1	Increasing the retention rate should coincide with an increase in success rate. This can result by increasing the number of courses available online providing additional open lab time for students to work as less time would be needed in the lab for traditional classes to meet.	Fall 2021	Program advisor will monitor retention rates and the impact on success rates.

Outcome #4: Licensure and Certification Passing Rates (if applicable) (NCCCS Performance Measure)

Baselines were set based upon WCC's average college performance of the measure. Standards and targets were set using WCC's performance of the NCCCS Performance Measure results and are the same as those set in the WCC Strategic Plan for Institutional Effectiveness.

Baseline: N/A % *(Average of last three years NCCCS Reports; 2018, 2019, and 2020)*

Standard: N/A %

Target: N/A %

Licensure / Certification Exam – (Title of License or Exam)

NCCCS Report	Exam Year	# Tested	# Passed	% Passing
2017	2015-16			
2018	2016-17			
2019	2017-18			
2020	2018-19			

Provide narrative for analysis of licensure / certification passing rates. *(Based on the performance measure data, provide a narrative of your analysis of licensure/certification. Are you satisfied with your program licensure or certification rates? State any changes you plan to make for continuous improvement.)*

Not applicable.

Provide narrative for analysis of licensure and certification passing rates standard/target. *(Standards and targets were set using WCC's performance of the NCCCS Performance Measure results and are the same as those set in the WCC Strategic Plan for Institutional Effectiveness.)*

Not applicable.

Identify Licensure and Certification Passing Rates Action Items

(Address program outcome assessments that fall below the established standard and/or target and additional recommendations resulting from the review.)

Item	Action Items <i>(Identify action items as a result of your program outcome assessment.)</i>	Target Date <i>(Identify your projected target date for completion of action items.)</i>	Assessment of Action Items <i>(How will you assess the results of action items?)</i>
1	Not applicable.		

Section 5: Other Assessments

In addition to SACSCOC, is there an accrediting body specifically related to the program? If so, please name the professional organization, describe the program's current status, and include the most recent date of accreditation.

Not applicable.

Analysis of other assessments. *(Have you performed other assessments to evaluate the effectiveness of your program, to include surveys, self-assessments, or other assessment instruments used to evaluate the program. If so, please explain how information collected from the(se) assessments will be used to improve the program.)*

The department periodically administers surveys to IST students to gather feedback about the best delivery methods and times of day preferences for class meetings. The program has three program learning outcomes that are representative of skill mastery of program participants; each is assessed via signature assignment during a three-year cycle. The rubrics have multiple dimensions that allow assessors to isolate areas that warrant improvement action items. All instructors have open communication with students and solicit at least informal feedback about all aspects of learning; this information is used to make rapid modifications to any warranted aspect of learning. All courses have formal online course feedback surveys that are administered near the end of the semester to allow students to express their experiences that relate to all aspects of learning. At the very least, the department chair reviews the course surveys and takes actions as warranted to enhance learning. The Office of Institutional Effectiveness collects data from advisory committees, employer, and graduate surveys and shares them with the department which in turn uses them as opportunities to take improvement actions.

Identify Other Assessment(s) Action Items (if applicable)

(Address program outcome assessments that fall below the established standard and/or target and additional recommendations resulting from the review.)

Item	Action Items (Identify action items as a result of your program outcome assessment.)	Target Date (Identify your projected target date for completion of action items.)	Assessment of Action Items (How will you assess the results of action items?)
1	Not applicable.		

Provide narrative for your program facility needs. If facilities are adequate, please confirm.

All seated and hybrid classes are taught in the Spruce Building on the main campus of Wayne Community College. The main classroom used is Spruce 206. The classroom has computers capable of running the video- intensive programs taught for simulation and game instruction. All classrooms in the Spruce Building are equipped with wireless Internet access, digital projectors, and instructor stations to provide opportunities for enhanced class presentations. Spruce 206 is currently used as a teaching classroom with limited time for students to use the room as an open lab for core SGD courses. Space is needed for chroma key recording (green screen), motion capture and an audio recording booth is needed. Request at least 500 square feet for chroma key and motion capture recording. Request a connected closet for storage that is at least 100 square feet which would also serve as an audio recording booth. The closet should have electrical receptacles to run recording equipment and glass windows on one side facing the motion capture area as is standard with modern audio recording booths.

Provide narrative for academic / student support services. (Are services adequate for your program?)

All academic and support services have open communication with faculty and there is a unified effort to provide the best service to all stakeholders. There are readily accessible channels to address any issues in maximum effort to close any adequacy gaps and ensure mission success.

Planning Objectives (2017-18; 2018-19; 2019-20 – Fiscal Year, July 1-June 30)

Provide a summary of planning objectives submitted for the last three years, including the use of results of the planning objectives in the table provided.

Summary of Planning Objectives

Planning Year (Fiscal Year – July 1-June 30)	Department	Objective(s) Submitted	Use of Results
2017-18	1) Information Systems Technology – SGD	1) Addition of Zbrush (24 licenses) (Approved) 2) (1)NETLAB+ VE -License -32 Pod; (2)Dell R730; (1)WS-C2960+48TC-L;	1) The software has been instrumental in expanding the modeling skill set of students; the software will also be used as a sculpting resource in SGD

	<p>2) Information Systems Technology</p> <p>3) Information Systems Technology</p>	<p>(1)UPS; (1)Rack (Approved)</p> <p>3) (1)ISR4321/K9; (4)Cisco NIM-16A; (4)CAB-HD8-ASYNC; (3)APC 7900; (9)Cisco ISR 4321 Sec bundle w/SEC license Bundle; (10)NIM-2T=; (9)Catalyst 2960 24 10/100 + 2 1000BT LAN Base Image (Approved)</p>	<p>162 and SGD 214 during Fall 2018.</p> <p>2) Items were purchased during the latter part of April and have not been received. Carry forward to the 2018-19 Plan to report assessment and use of results. 2018-19 Use of Assessment: At least 75% of students scored at least 70% or higher on tasks that required comprehension of concepts and techniques related to the respective technologies. The department plans to expand the use of the technologies and scale them out to other courses to enhance the remote learning environment.</p> <p>3) Items were purchased during the latter part of April and have not been received. Carry forward to the 2018-19 Plan to report assessment and use of results. 2018-19 Use of Assessment: At least 75% of students scored at least 70% or higher on tasks that required comprehension of concepts and techniques related to the respective technologies. The department plans to expand the use of the technologies and scale them out to other courses to enhance the remote learning environment.</p>
2018-19	<p>1) Information Systems Technology – SGD</p> <p>2) Information Systems Technology (all IST programs)</p>	<p>1) (7) 3D printer (Funded)</p> <p>2) (2) Laptops and (2) USB cameras (Approved)</p>	<p>1) At least 75% of students scored at least 70% or higher on tasks that required comprehension of concepts and techniques related to 3D modeling. There seems to be anecdotal evidence the printers have enhanced the learning within and credibility</p>

			<p>of the respective 3D modeling courses. The lead instructor is exploring ways to further integrate 3D printing concepts into other facets of the respective courses.</p> <p>2) The correct laptops were requested in late April 2019 and received in April 2019. However, they have not been configured by Dell. Carry forward to the 2019-20 Plan/Budget to report assessment of the objective. Carry forward to 2020-21 Plan to report assessment.</p>
2019-20	<p>1) Information Systems Technology</p> <p>2) Information Systems Technology</p>	<p>1) Request Rokoko SmartSuit Pro (class bundle that has 5 suits of various sizes). (Approved)</p> <p>2) (9) SGD computers, with hardware that has the potential to support SGD activities. (Approved)</p>	<p>1) Awaiting receipt. Unable to assess objective due to campus shut-down, stay-at-home orders. Carry forward to the 2020-21 Plan to report assessment.</p> <p>2) Awaiting receipt. Unable to assess objective due to campus shut-down, stay-at-home orders. Carry forward to the 2020-21 Plan to report assessment.</p>

Provide narrative for analysis of the program's / discipline's strengths, weaknesses, and opportunities.

Strengths

- On-campus and remote access labs provide students opportunity to work with 3D modeling software.
- Articulation agreement with North Carolina Wesleyan College that provides 4-year degree completion.
- Relationships with local and metro area employers provide internships and employment opportunities to students
- Administration advocates new ideas and progressive learning methods that enhance student success in the classroom and the workforce
- Administration strives to secure funding required to keep technology current
- Division has an environment that promotes decisions to be made at the lowest possible level and encourages faculty to "think big"; faculty have flexibility to quickly implement technologies and curricula to stay current with workforce needs

- Faculty routinely evaluate course content and technology to ensure they prepare students for current workforce skill requirements
- Industry-technology professional development opportunities are available to faculty
- Courses continue to be redesigned to keep up with the latest industry demand and trends
- Classes are located in a modern facility

Weaknesses and Opportunities

- Space limitations will be a challenge as emerging technologies arise; however, there are projected expansion opportunities as classrooms are projected to be repurposed after entities are relocated.

Section 6: Outcomes Follow-Up and Approvals

Outcomes follow-up (year-end report) to be addressed spring semester following review year (2021-22 and 2022-23).

Review prepared and submitted by: *(Please list name(s) and titles)*

David Vinciguerra, Emerging Technologies Coordinator

Approvals

1. Using DocuSign (electronic signature), the Office of Institutional Effectiveness (IE) will review the Program/Service Review and Outcome Assessments when completed by the responsible program/service personnel. The Office of Institutional Effectiveness will forward the review documents to the appropriate administrator (VP/AVP) upon completion.
2. Using DocuSign (electronic signature), appropriate Division Dean, Director, or AVP is asked to review and approve the Review and Outcome Assessment.
3. Using DocuSign (electronic signature), appropriate Vice President/Associate Vice President is asked to review and approve the Review and Outcome Assessments.

Dean, Director, or AVP / Date: Tracy M. Schmeltzer 5/24/2021

IE Acceptance / Date: Dorothy Moore 5/14/2021

Administrator Approval / Date: Patty Pfiffer 5/24/2021