

**BOARD OF REGENTS**  
**EASTERN MICHIGAN UNIVERSITY**

**RECOMMENDATION**

**NEW ACADEMIC PROGRAMS**

**ACTION REQUESTED**

It is recommended that the Board of Regents approve a new Academic Program: Bachelor of Arts/Science in Simulation, Animation and Gaming.

**SUMMARY**

**Bachelor of Arts/Science in Simulation, Animation and Gaming.** The SAG program is an interdisciplinary degree program that prepares students for careers in designing and developing traditional and digital animation, games, entertainment, film and videos, 3D models, realistic simulations and programming. The program consists of courses in a variety of disciplines, including Art, Computer Science, Graphic Design, Management and Communication. The unique aspect of the program lies in its emphasis on simulation, which is what distinguishes this program from similar programs at other state institutions. Students in the program all complete the same sequence of courses during the first two years, and then choose either a graphic and design or a programming option.

**FISCAL IMPLICATIONS**

The Bachelor of Arts/Science in Simulation, Animation and Gaming is an interdisciplinary program between two colleges, housed in the College of Technology. Courses in the program can be accommodated within existing faculty resources. No new resources are requested at this time. Future resource needs will be determined in accordance with Division, College and Department priorities.

**ADMINISTRATIVE RECOMMENDATION**

The proposed Board action has been reviewed and is recommended for Board approval.

University Executive Officer  
Provost and Executive Vice-President

\_\_\_\_\_  
Date 11-7-08

\_\_\_\_\_  
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Presidents Council  
State Colleges and Universities

ACADEMIC PROGRAM REVIEW

Program Information

New

RE: Eastern Michigan University  
(Institution)

Simulation, Animation & Gaming  
(Program Title)

Fall '09  
(Effective Term & Year)

Bachelor of Arts/Science  
(Degree)

\_\_\_\_\_  
(HEGIS Code)

PROGRAM REVIEW STATUS:

☒ Submitted for initial review

\_\_\_\_ Stage I

☒ Stage II

Resubmitted for follow-up review  
Previously reviewed (Ref. No. \_\_)  
resubmitted-change in curricular approach  
Other

PROGRAM SUBMITTED FOR:

☒ Action

\_\_\_\_ Information

LOCATION:

☒ Main Campus

☒ Existing outreach/extension sites

\_\_\_\_ New locations \_\_\_\_\_

\_\_\_\_\_  
Principal clinical sites will be:

RESOURCES:

☒ Reallocation of existing resources

\_\_\_\_ New resources required

Source: \_\_\_\_ "Special Grant Funding"  
from the State

Other (explain) \_\_\_\_\_

AUTHORIZATION OF NEW DEGREE  
LEVEL REQUIRED:

\_\_\_\_ within the institution

\_\_\_\_ within the discipline or field

STUDENTS:

☒ New target population

\_\_\_\_ Current enrollment shift

\_\_\_\_ Local Community demand

\_\_\_\_ Other (list) \_\_\_\_\_

AUTHORIZATION OF NEW DEGREE  
REQUIRED:

\_\_\_\_ within the institution

\_\_\_\_ within the discipline or field

ATTACH ADDITIONAL INFORMATION IN ACCORDANCE WITH THE GUIDELINES ON THE  
BACK

From: Donald Loppnow, Provost and Executive Vice-President  
(Name/Title)

EMU 9/10/08  
(Institution) (Date)

## PROPOSALS FOR NEW PROGRAM

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### *Proposal for the Creation of a Major in Simulation, Animation and Gaming (SAG)*

Bachelors of Science

School of Technology Studies

College of Technology

Submitted by Pamela K. Speelman, Ph.D., Professor

Contact phone: 487-1161 Contact email: [pspeelman@emich.edu](mailto:pspeelman@emich.edu)

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## I. Description

### A. Goals and Objectives

#### 1. General philosophy and intent:

The Simulation, Animation and Gaming (SAG) Program at Eastern Michigan University (EMU) is a distinctive interdisciplinary program created by faculty from several departments throughout campus. All faculty members were appointed by their respective school directors to participate in the development of this new program because of their expertise in their field. The faculty members consisted of: Pamela K. Speelman in graphics design and multimedia, David K. Gore in graphics and photography, Paul T. Majeske in digital communication, Ryan Malloy in art, Susan Makrouhee Haynes and Matthew Paul Evett in computer programming. The proposed curriculum in Simulation, Animation and Gaming (SAG) is based on the reality that the entertainment industry is the fastest growing industry today, according to the Entertainment Software Association (ESA)<sup>1</sup> and the program contains a unique facet “not specifically addressed by other colleges” in the State of Michigan. The distinctive feature of the proposed program is the simulation component.

Computer simulation models real-life or hypothetical situations to show how systems function. The models can be further utilized in analysis by changing variables within the system to evaluate the results. This unique aspect of the SAG program, simulation, broadens the skill foundation and occupational opportunities of the program graduates. Simulation covers a broad range of professional disciplines: natural science, medical profession, education and training, city and urban planning, engineering, technology and processes. Each discipline may contain either the physical, interactive or both parts of simulation.

Professors Speelman and Gore have recently had a peer-reviewed presentation accepted at the Society for Information Technology and Teacher Education, 19<sup>th</sup> (2008) International Conference in Las Vegas, Nevada. The presentation entitled, *Simulation Project as a*

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<sup>1</sup> <http://www.theesa.com/> retrieved 02/28/2008

*Higher Order Thinking Technique for Instruction*, is based on a winter 2007 project created by students in the pilot course, Graphics for Simulation. The students in this course successfully designed and developed a “*Physical Security Inspection*” multimedia model of 133 Sill Hall under the guidance of Dr. Linda Kinczkowski, Coordinator of Information Security, as a final project. Sill 133 is a College of Technology public computer laboratory. A copy of the accepted presentation abstract can be found in Appendix D, Supporting Documents.

## **2. Goals and objectives:**

The Simulation, Animation, and Gaming (SAG) program is an interdisciplinary degree that prepares students for careers in designing and developing traditional and digital animation, games, entertainment, film and videos, 3D models, realistic simulations and programming.

Students in the SAG program begin with a foundation in drawing, color, design, and computer applications. Students advance to 2D and 3D animation and modeling principles along with story development, background design, scene layouts, special effects, texturing and mapping. The students in this program become experienced with a variety of industrial standard application software. All students are required to produce a portfolio of their course work, demonstrating their skills and abilities in each class in the program.

The Simulation, Animation and Gaming curriculum provides an educational program to prepare students to successfully obtain careers within this field. The undergraduate course offerings reflect the goals of the Simulation, Animation and Gaming program.

- A. To offer a variety of instructional courses and program concentrations in areas of need that are identified by faculty, students, and external advisory committee members.
- B. To provide cooperative education and internship opportunities for undergraduate students that will enhance their classroom experience.
- C. To extend research and service opportunities to industry, with focus on Simulation, Animation and Gaming, within Michigan and the nation.
- D. To provide students a variety of opportunities to participate in student organizations which provide leadership experiences and contacts with business and industry.
- E. To use advisory committees in areas of instruction and research to assist the faculty in keeping the program and research relevant to the needs of industry.

- F. To cooperate with other academic and administrative units within the University in providing the best interdisciplinary education for students within the program of study.
- G. To consistently evaluate the current program of study using student input, follow-up placement data, and advisory committee input.

### **B. Program**

This interdisciplinary curriculum will be housed in and administrated by the School of Technology Studies. All current courses, and the program of study, are detailed below:

- a) The following are current courses that will be included in the Simulation, Animation and Gaming major (see syllabi for all existing courses in Appendix A).

#### **Current Required Courses:**

ART 122 – 2 Dimensional Design  
 ART 123 – Drawing I  
 ART 131 – 3 Dimensional Design  
 CMT 205 – Digital Photography  
 CMT 231 – Introduction to Computer Graphics Systems  
 COSC 111 – Introduction to Programming  
 COSC 211 – Programming Data Structures  
 CTAT 141 – Audio & Video Production  
 MGMT 386 – Organization Behavior & Theory  
 MGMT 486 – Organizational Change & Team Building  
 STS 300W – Researching & Writing Techniques

- b) The following are new courses that will be required for the Simulation, Animation and Gaming major (see attached New Courses forms in Appendix B-1) in the first two years.

#### **New Required Courses:**

SAG 105 – Introduction to Simulation, Animation and Gaming  
 SAG 175 – Graphics for Simulation I  
 SAG 225 – Graphics for Simulation II  
 SAG 235 – Flash I  
 SAG 245 – Story Development  
 SAG 285 – Studio I - Simulation

COSC 156 – Introduction to Alice (This course will be processed by the Department of Computer Science).

- c) Below are new courses that will be electives for the Simulation, Animation and Gaming major (see attached New Courses forms in

Appendix B-2). These courses are meant to enhance the body of knowledge for those students interested in web-based applications.

**New Electives Courses:**

SAG 335 – Flash II

SAG 365 – Flash III

- d) There are two different track options within the curriculum which begin in the third year of the major: one a graphic and design option, and the other a programming option.

**Cognate Option A**

This cognate allows the student to continue his or her pursuit in the graphic and design aspect. The following are new courses for this cognate option of the major (see attached New Courses forms in Appendix B-3).

**New Required Courses:**

SAG 275 Texturing & Mapping

SAG 305 Environmental Design

SAG 355 Lighting & Camera Techniques

SAG 375 Studio II – Deconstructing Elements

SAG 470 Simulation & Animation Dynamics

**Capstone:**

SAG/COSC 485 – Senior Project in Simulation, Animation and Gaming

This course will be cross-listed by both the School of Technology Studies and Computer Science, so students can use the application of simulation, animation, and gaming techniques for the completion of a team-based final project. The course will be team taught by faculty from the respective departments.

**Cognate Option B**

This cognate allows the students to pursue their final two years in the Computer Science Department, learning the programming languages needed to succeed in the SAG profession. The courses in this cognate utilize existing courses within the department and are listed below.

COSC 221 Computer Organization I

COSC 311 Algorithms and Data Structures

COSC 456 Computer Graphics

COSC 457 Computer Game Programming

COSC 461 Heuristic Programming

COSC 481 Software Engineering and Senior Project

COSC 486 Cooperative Education in Computer Science

MATH 205 Mathematical Structures for Computer Science

### **C. Admissions**

There will be no admission requirements to the program beyond those required by the University and there are no provisions for conditional admission to the program.

### **D. Projections**

If approved, all resources and courses are in place to begin immediately in the semester following the approval.

As an indicator of student demand, three courses have been offered as special topic - pilot classes over a three semester period to assist in evaluating the demand. The special topic - pilot courses were the introduction to simulation, animation and gaming, introduction to graphics and an introductory Flash class. The following table shows the results of the enrollment over the three semester period:

	Winter 2007 enrollment	Fall 2007 enrollment	Winter 2008 enrollment
Introduction to Simulation, Animation and Gaming	19	14	17
Graphics for Simulation	18	15	11
Flash programming			12

## **II. Justification/Rational**

### **A. Market Analysis**

The market analysis clearly supports the establishment of the Simulation, Animation and Gaming program being proposed. Businessweek.com stated in its online article, *The Video Game Industry Outlook: \$31.6 Billion and Growing*, that PricewaterhouseCoopers released a report estimating that the video game market will increase from \$31.6 billion in 2006 to \$48.9 billion by 2011. They continue to say that the video game market, which spans globally, is the third fastest growing section of the entertainment and media market (document in Appendix C).

The occupational title most closely associated to the program's intent is *Multi-media artists and animators*, SOC Code 27-1014. Information gathered from the Bureau of Labor Statistics (full document in Appendix C) regarding the entire artists and related workers category states the following about the employment trends of this occupational division:

**Employment change.** Employment of artists and related workers is expected to grow 16 percent through 2016, faster than the average for all occupations. Demand for multimedia artists and animators will increase as consumers continue to demand more realistic video games, movie and television special effects, and 3D animated movies. Additional job openings will arise from an increasing demand for Web site development and for computer graphics adaptation from the growing number of mobile technologies. Animators are also increasingly finding work in alternative areas such as scientific research or design services.

The National Employment Matrix, Occupational Title, in Figure 1 below indicates the employment projection data for all occupations associated with artists and related workers. However, the multi-media artists subdivision is the fastest growing sector in the whole division at a 26% growth increase in the next 10 year period. This is substantially larger than the 16% growth forecast for the entire occupational division.

Projections data from the National Employment Matrix

Occupational Title	SOC Code	Employment, 2006	Projected employment, 2016	Change, 2006-2016	
				Number	Percent
Artists and related workers.....	27-1010	218,000	255,000	34,000	16
Art directors.....	27-1011	78,000	85,000	7,000	9
Craft artists.....	27-1012	8,000	9,500	1,500	8
Fine artists, including painters, sculptors, and illustrators.....	27-1013	50,000	53,000	3,000	10
Multi-media artists and animators.....	27-1014	87,000	110,000	23,000	26
Artists and related workers, all other.....	27-1019	14,000	15,000	1,000	8

NOTE: Data in this table are rounded. See the discussion of the employment projections table in the *Handbook* introductory chapter on *Occupational Information Included in the Handbook*.

Figure 1

With simulation included in the EMU Simulation, Animation and Gaming program, a broader search for the market analysis needed to be done. The following statement is from Autodesk's website:

## Training & Simulation

*Autodesk® products and solutions deliver industry-leading tools that are used to model, create, and visually represent real-world situations and environments in an immersive learning construct. Command staff, weapons system operators, and field operator teams can visualize terrain, assets, and infrastructure in combination with spatial data in order to more effectively plan, rehearse, and execute their mission. Whether rehearsing for emergency response to a natural disaster, simulating troop movements across unfamiliar terrain, or delivering flight, tank, or ship training, personnel, teams can plan and train in a complete, rich 3D simulation.*



The Autodesk products are being used in a majority of SAG courses to create simulations similar to those described in their website. The website's URL is listed below and a more extensive paper regarding the government's use of simulation and training can be found in Appendix C.

<http://usa.autodesk.com/adsk/servlet/item?siteID=123112&id=8988016>

As stated earlier in the proposal, simulation covers a broad range of professional disciplines: natural science, medical profession, education and training, city and urban planning, engineering, technology and processes. Each discipline may contain either the physical, interactive or both parts of simulation.

Included in appendix C is a sample listing of 20 jobs in simulation taken from the website of The National Center for Simulation. This listing only comprises a short four-month period. One particular job opportunity posted on Monday, December 17, 2007, by Digimation, Inc., *a world renowned modeling and software company*, lists the required skill set of a 3D Modeler candidate – see Appendix C for this job. The skill set requirements of this 3D Modeler position parallels the competencies a graduate of the SAG program will possess upon graduation.

*The Occupational Outlook Quarterly* separates the occupations from video game development into four distinct teams: design, artistic, programming and testers. Each team has subdivisions with various job titles. Below is Table 1, which was developed from information obtained from both the Quarterly and the website [www.allartschools.com](http://www.allartschools.com) showing various job titles and approximate salaries based on years of experience (documentation in Appendix C). Data was taken from a survey of the video game industry in 2005 because the Bureau of Labor Statistics does not differentiate between the various job titles within the video gaming profession.

<i>Job Title</i>	<i>Less than 3 years experience</i>	<i>3 to 6 years of experience</i>	<i>Over 6 years of experience</i>
<b><i>DESIGN TEAM</i></b>			
Video Game Designer	\$43,486	\$54,777	\$69,813
Lead Designer	N/A	\$72,125	\$88,734
<b><i>ARTISTIC TEAM</i></b>			
Artist/Animator	\$45,675	\$61,065	\$69,457
Lead Artist/Animator	N/A	\$68,112	\$82,750
<b><i>PROGRAMMING TEAM</i></b>			
Programmer	\$52,989	\$73,618	\$90,658
Lead Programmer	\$76,848	\$81,591	\$100,528
<b><i>TESTER TEAM</i></b>			
Tester	\$24,797	\$29,722	N/A
Q/A Lead	\$33,125	\$43,125	\$61,310

Table 1 – Salary vs. Years of Experience

The Entertainment Software Association has published a document entitled, *Video Games in the 21<sup>st</sup> Century, Economic Contributions of the US Entertainment Software Industry*, which is included in Appendix C.

## **B. Needs Assessment**

The Bureau of Labor Statistics (BLS) uses the title, *Multi-media artists and animators*, SOC Code 27-1014, which is similar to the SAG program's objective. Below is the BLS's description of the Nature of the Work.

*Multi-media artists and animators work primarily in motion picture and video industries, advertising, and computer systems design services. They draw by hand and use computers to create the series of pictures that form the animated images or special effects seen in movies, television programs, and computer games. Some draw storyboards for television commercials, movies, and animated features. Storyboards present television commercials in a series of scenes similar to a comic strip and allow an advertising agency to evaluate commercials proposed by advertising companies. Storyboards also serve as guides to placing actors and cameras on the television or motion picture set and to other production details. Many multimedia artists model objects in three dimensions by computer and work with programmers to make those images move.*

This descriptive paragraph defines many of the tasks required of a person in the occupational field of video game development, but not about simulation. However, since the BLS does not gather specific information regarding the various job titles associated with the video game development profession or simulation, Table 2 was constructed from *The Occupational Outlook Quarterly* (2006) and the website [www.allartschools.com](http://www.allartschools.com) (the documents are included in Appendix C) about video game development only.

<b><i>Job Title</i></b>	<b><i>Job Tasks</i></b>
Game Designer	Decide on mission, theme and rules of the game. Write the blueprint for the game.
Artist/Animator	Create the art work for the game environments, characters and graphics. Along with developing materials and textures.
Programmer	Responsible for the writing the game's programming code.
Tester	Play the game and report any bugs in game that may hinder the game's play.

Table 2 – Job Titles and Tasks

### ***The Competition: Why EMU's SAG Is Different***

There are many colleges within Michigan offering degrees under the occupational title *Multi-media artists and animators*, but not simulation. A search using Open Options, a career planning tool available through EMU's Career Services website, provided the following results. The first search was based on the following criteria:

- a) Job Family - Arts, Design, Entertainment, Sports, and Media
- b) Occupation - Multi-Media Artists and Animators
- c) Education Level - At least 2 but less than 4 years
- d) State – Michigan

Below is a list of 17 institutions that match the above criteria.

<b>Name</b>	<b>City</b>	<b>State</b>
Delta College	University Center	MI
Glen Oaks Community College	Centreville	MI
Henry Ford Community College	Dearborn	MI
ITT Technical Institute-Canton	Canton	MI
ITT Technical Institute-Flint	Flint	MI
ITT Technical Institute-Troy	Troy	MI
Kalamazoo Valley Community College	Kalamazoo	MI
Kellogg Community College	Battle Creek	MI
Kirtland Community College	Roscommon	MI
Lansing Community College	Lansing	MI
Mid Michigan Community College	Harrison	MI
Monroe County Community College	Monroe	MI
Mott Community College	Flint	MI
Muskegon Community College	Muskegon	MI
Oakland Community College	Bloomfield Hills	MI
Schoolcraft College	Livonia	MI
Washtenaw Community College	Ann Arbor	MI

Many of these community colleges presently have articulation agreements with other programs within Eastern Michigan University. Thus, opportunities exist if the proposed program in Simulation, Animation and Gaming is approved. To view the programs at

Henry Ford, Schoolcraft and Washtenaw, which grant associate degrees in the field, see the websites listed below.

**Henry Ford Community College- Associates**

[https://my.hfcc.edu/site\\_manager/catalog\\_manager/programs/view\\_program1.asp?id=410&view=s](https://my.hfcc.edu/site_manager/catalog_manager/programs/view_program1.asp?id=410&view=s)

**Schoolcraft Community College- Associates**

<http://www.schoolcraft.edu/programs/programs.asp>

**Washtenaw Community College- Associates**

<http://www.wccnet.edu/academicinfo/creditoofferings/programs/careerareas/showcareerarea.php?path=visualarts>

The second search using Open Options used the same set of criteria, with the exception of changing the Educational Level for colleges offering *Four or more years of education* in the multi-media artist and animators occupation resulted in the following results.

Below is a list of 13 institutions that match the specified criteria.

<b>.Name</b>	<b>City</b>	<b>State</b>
Andrews University	Berrien Springs	MI
Baker College Center for Graduate Studies	Flint	MI
Central Michigan University	Mount Pleasant	MI
College for Creative Studies	Detroit	MI
Cranbrook Academy of Art	Bloomfield Hills	MI
Davenport University	Grand Rapids	MI
Ferris State University	Big Rapids	MI
ITT Technical Institute-Grand Rapids	Grand Rapids	MI
International Academy of Design and Technology	Troy	MI
Madonna University	Livonia	MI
Saginaw Valley State University	University Center	MI
University of Michigan-Ann Arbor	Ann Arbor	MI
Western Michigan University	Kalamazoo	MI

Colleges like Central Michigan University and Western Michigan University are members of the Mid-America Conference and are comparative to Eastern Michigan University. However, they do not offer a simulation aspect to their game development program. So, to be exceptional in this emerging profession, it is vital for EMU to

implement the proposed SAG program as soon as possible because the program contains a unique facet of simulation which is *“not specifically addressed by other colleges”* in the State of Michigan . Listed are some websites of highly advertised gaming programs in Michigan offering bachelor degrees.

**College for Creative Studies - Bachelors**

<http://www.ccsacad.edu/current/majors/animation/>

**Ferris State University- Bachelors**

<http://catalog.ferris.edu/programs/540/>

**University of Michigan Dearborn- Bachelors**

[http://www.engin.umd.umich.edu/CIS/undergrad\\_prog/](http://www.engin.umd.umich.edu/CIS/undergrad_prog/)

**Michigan State University- Masters**

<http://seriousgames.msu.edu/>

As previously indicated in this proposal, the EMU SAG program will have a major emphasis on simulation which will have a broader impact on all disciplines and professions.

### **III. Preparedness**

- A. Qualifications of the EMU faculty:** The interdisciplinary Simulation, Animation and Gaming program was designed and developed by a team of faculty from various departments throughout campus. The SAG program is composed of new courses and existing courses that will be taught by current faculty from Art, Computer Science, Communications and Theater Arts, Management, and the School of Technology Studies. Each of these departments have highly qualified faculty.

Even though the School of Technology Studies will house the new program, the faculty who designed and developed the program have specializations in their discipline. The faculty members consist of:

- a) Pamela K. Speelman – Professor in School of Technology Studies, Ph.D., Instructional Technology – Computer Emphasis.
- b) David K. Gore – Coordinator and faculty member in Communication Technology in School of Technology Studies, ABD Ed.D., Technology Education.
- c) Paul T. Majeske – Associate Professor in School of Technology Studies, ABD Ph.D., Instructional Technology
- d) Ryan Malloy - Assistant Professor in Art Department, M.A., Fine Arts
- e) Susan Makrouhee Haynes – Associate Professor in Department of Computer Science, Ph.D., Computer, Information and Control Engineering

f) Matthew Paul Evett – Associate Professor in Department of Computer Science, Ph.D., Computer Science

- B. **Space or facilities required:** All courses can be taught in the existing facilities.
- C. **Equipment required:** All courses can be taught with the existing hardware and software in present use within the contributing departments.
- D. **Assistantships/fellowships required:** The program is an undergraduate proposal and there is no anticipated need for additional assistantships/fellowships.
- E. **Library resources required:** The program will be dependent on the existing library resources currently available.
- F. **Future:** Apple computer laboratory – (iMacs already purchased).

#### IV. Plans for Assessment/Evaluation

The assessment/evaluation of the proposed Simulation, Animation and Gaming curriculum will be achieved in several ways:

- A. The School of Technology Studies will monitor annual enrollment figures in the curriculum to assess of this program's enrollments. In addition, it will evaluate recruitment and retention strategies on an ongoing basis.
- B. An industrial advisory board will be established which will consist of qualified external professionals employed in the field of simulation, animation and gaming. This board will meet on an annual basis to assist with the on-going evaluation of the entire scope of the program's needs.
- C. Follow-up studies of program graduates will be conducted to validate competency both from the program outcomes and student competencies.
- D. Co-op information submitted by both the employer and the student will be regularly reviewed to evaluate course objectives and student mastery of skills.
- E. Students will create hard-copy and digital portfolios in every simulation, animation, and gaming course in the curriculum. These portfolios will showcase student's conceptual and creative skills in traditional and digital 2D and 3D techniques and abilities. Portfolios will also enable students to showcase their collection of skills to potential employers upon graduation. These portfolios will also be assessment measures for evaluating mastery of the student competencies.

- F. The required capstone project of the two cognate groups, which is required as part of the curriculum, will provide tangible products. These products will be used annually to assess the development of knowledge and skills outlined in the program objectives listed in this proposal.
- G. The course outcomes in this program will systemically undergo a continuous process of monitoring, development, implementation, assessment and revision. Successful assessment of any program requires a continuous plan for improvement to maintain and expand the superiority of the program.

## V. Program Cost

- A. **Faculty:** Since this program was constructed by faculty from several interdisciplinary departments, it can proceed without any immediate need for additional faculty. As the student demand increases, the contributing departments may need to re-evaluate their need for extra faculty in the simulation, animation and gaming area, in arrangement with the departmental priorities and possibilities at the time. The SAG program will allow current STS faculty to teach in a program that has shown tremendous growth potential as well as help fill the need for teaching assignments because of declining enrollment in other programs.
- B. **Space or facilities required:** No cost. However, eventually a dedicated laboratory assuming growth occurs as expected.
- C. **Hardware/software required:** No cost at this time, but with advancing technology both in hardware and software on a regular basis, the SAG program will need to maintain up-to-date equipment.
- D. **Library resources required:** As the program progresses, the Library faculty will have an opportunity to consider additional resources as needed in the future.
- E. **Marketing and recruiting cost:** These activities do not involve additional costs that could not be absorbed by the participating departments.
- F. **Other costs not covered above:** Not applicable

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## VI. Action of the Department/College

**1. Department** (Include the faculty votes and department head signatures from all submitting departments.)

Vote of department faculty: For \_\_\_\_\_ Against \_\_\_\_\_ Abstentions \_\_\_\_\_  
(Enter the number of votes cast in each category.)

I support this proposal. The proposed program can \_\_\_\_\_ cannot \_\_\_\_\_ be implemented within the affected Department(s) without additional College or University resources.

\_\_\_\_\_  
Department Head Signature

\_\_\_\_\_  
Date

**2. College/Graduate School** (Include signatures from the deans of all submitting colleges.)

**A. College.**

I support this proposal. The proposed program can \_\_\_\_\_ cannot \_\_\_\_\_ be implemented within the affected College without additional University resources.

\_\_\_\_\_  
College Dean Signature

\_\_\_\_\_  
Date

**B. Graduate School (new graduate programs ONLY)**

\_\_\_\_\_  
Associate Dean Signature

\_\_\_\_\_  
Date

## VII. Approval

\_\_\_\_\_  
Associate Vice-President for Undergraduate Studies and Curriculum Signature

\_\_\_\_\_  
Date

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## VIII. Support

In Appendix D are letters of support for the proposed SAG program. The letters are from Dr. Tom Venner, Department Head of Art and Dr. William W. McMillan, Interim Department Head of Computer Science.

## IX. Appendices

**A. Current Required Course Syllabi**



- B. Request for New Courses/New Elective Course Forms along with syllabi
- C. Market Analysis/Needs Assessment References
- D. Supporting Documents
- E. Faculty Vitae
  - Pamela K. Speelman, Ph.D.
  - David K. Gore
  - Paul T. Majeske
  - Ryan Malloy
  - Susan Makrouhee Haynes, Ph.D.
  - Matthew Paul Evett, Ph.D.

## **X. Summary**

In summary, Eastern Michigan University has a unique program in Simulation, Animation and Gaming which places it in uniquely distinctive position compared to the colleges listed in this proposal. This distinct program in SAG will allow EMU to compete against national universities as it simultaneously strives to distinguish itself within the fast growing fields of the video gaming market and simulation which are expanding globally and across disciplines.