PROGRAM ABSTRACT - Form A

Proposed Degree Title: _____B.A.S._____ in _____Game Design Studies_____
                         B.A., B.S., M.A., M.S., etc.   Discipline

COLLEGE: CHABSS and CEHSS_____   Proposed Implementation Date   <u>Fall 2019</u>

About the A-Form.

<u>Background</u>: New baccalaureate and graduate-level degrees must be approved by the Chancellor's Office. Every January, CSU campuses send updated University Academic Master Plans (or UAMPs) to the Chancellor's Office, which are then approved by the Board of Trustees at their March meeting. When the Board of Trustees approves a campus request to add a new program to the UAMP, it authorizes the campus to submit a formal proposal to the Chancellor's Office for establishing such a degree program.

<u>Purpose</u>: The A-Form is used to propose the addition of a new baccalaureate or graduate degree to the UAMP.

<u>Process</u>: After review by the appropriate college curriculum or planning committee in the Spring semester, A-Forms are sent to Academic Programs at the beginning of the Summer. The forms are distributed to key University officers (including all members of Provost's Council and the President's Cabinet) over the Summer for information dissemination, review and feedback. The feedback received as a result of this distribution is provided to proposers as it is received during the Summer (to inform development of the program proposal) and to the Budget and Long-range Planning Committee (BLP) at the beginning of the Fall semester.

<u>Outcomes</u>: BLP reviews the A-Forms and the feedback collected by Academic Programs, and makes recommendations as to whether programs should be added to the next UAMP. Placement of a program on the UAMP is the campus-level authorization to proposers to submit a complete new program proposal (via a P-Form). Comments from BLP are sent back to the proposal originator to inform the final design and plan for the proposed program. The A-Form, Summer reviewer feedback, and BLP comments are additionally used to prepare a summary statement for the Chancellor's Office, which is required for any addition to the UAMP.

Directions.

- Fill in the degree title, college and implementation date above.
- Attach a program abstract addressing items 1-5 to this form.
- Identify the program proposer and obtain the department chair or program director signature below.
- Submit the abstract and the Form A to the college curriculum or planning committee. (Check with the college for submission deadlines.)

1. <u>Description</u>: Briefly describe the essential features of the curriculum that will be developed.

- If the new degree is currently offered as an option in an existing degree program, give a rationale for the conversion.
- If the new degree program is not commonly offered as a bachelor's or master's degree, provide a compelling academic rationale explaining how the proposed subject area constitutes a coherent, integrated degree major that has potential value to students.

2. <u>Mission</u>: How will this program benefit the college, university, region and/or state? How is it aligned with the College and University Mission and Vision?

3. Demand: What evidence is there of adequate student demand for this program?

[Note that Board of Trustees classifies Anthropology, Art, Biology, Chemistry, Economics, English, Foreign Languages, Geography, Geology, History, Mathematics, Music, Philosophy, Physics, Political Science, Psychology, Sociology, Speech/Communication and Theatre Arts/Drama as "Broad Foundation Programs" for which societal need and student demand are not "the preeminent criteria" for offering baccalaureate programs.]

Preliminary evidence of adequate student demand for the proposed program should include
  (i)   A list of other CSU campuses currently offering the proposed degree major program (see the CSU Mentor website at http://www2.assist.org/browseAreas.do),
  (ii) A list of neighboring institutions, public or private, currently offering the proposed degree major program,
  (iii) Information indicating substantial regional demand for individuals who have earned this degree (contact the Career Center for assistance), and
  (iv) Information indicating adequate student interest in the proposed program (e.g., numbers of minors, existing programs at feeder community colleges, or results of student surveys).

Graduate degree program proposals must also include the number of declared undergraduate majors and the degree production over the preceding three years for the corresponding baccalaureate program.

4. Resources: Give preliminary estimates of the following resources needed to implement the program:
  - Additional faculty positions;
  - Additional resources required for program administration (e.g., release time for a Chair or Director);
  - Additional staff support;
  - Additional space requirements; and
  - Additional specialized equipment and materials other than those expected to be provided by the Library and Instructional and Information Technology Services (IITS).

Note that in the course of reviewing the A-Form over the Summer, the Library and IITS will estimate additional library, information technology and academic computing resources needed for implementation. Indicate whether there are any unusual aspects of the curriculum design that need to be taken into account in the preparation of the Library and IITS estimates.

If there are recognized accrediting bodies in the program area, what are the accreditation criteria and how necessary is accreditation?

5. Relation to Existing Programs: Describe the potential effect on existing programs (e.g., enrollment changes, opportunities for collaboration, resources).

REVIEW PROCESS

1. Sinem Siyahhan	07/25/17		1. Lucy HG Solomon	7/25/17
Originator (Please Print and Sign)	Date		Originator (Please Print and Sign)	Date
2. Pat Stall	7/25/17		2. JUDIT HERSKO	8/25/17
Program/Department Director/Chair*	Date		Program/Department Director/Chair*	Date
3.	10-3-17		3.	10/3/17
College Curriculum/Planning Committee*	Date		College Curriculum/Planning Committee*	Date
4. Dennis Garcs	10-3-17		4. Mary Stoddal Hrong	10/16/17
College Dean (or Designee)*	Date		College Dean (or Designee)*	Date

5. _____
Date received in Academic Programs
* Signature indicates support that the proposed program move forward for consideration for placement on the UAMP.

Abstract

Bachelor of Arts and Science (B.A.S.) in Game Design Studies

1. <u>Description</u>: Briefly describe the essential features of the curriculum that will be developed.

- If the new degree is currently offered as an option in an existing degree program, give a rationale for the conversion.
- If the new degree program is not commonly offered as a bachelor's or master's degree, provide a compelling academic rationale explaining how the proposed subject area constitutes a coherent, integrated degree major that has potential value to students.

The four-year B.A. in Game Design Studies program aims to help undergraduate students develop a foundation in the multiple applications of video games technology and design. Video games are a $91 billion industry worldwide and $30 billion industry in the United States. For many years, video games have been considered to be mere entertainment. However, within the last decade, designers, researchers, educators, and policymakers have recognized their educational and health applications and their potential for social impact. Today, the field of game design is diverse and filled with designers, artists, programmers, learning scientists and researchers focusing on aesthetic, cultural, technical, and communicative aspects of video games. The proposed program will equip students with the design, technical, communication, and leadership skills needed to enter the interdisciplinary field of game design studies.

The diversity in game design studies is captured by the findings from a recent survey by the Higher Education Video Games Alliance (HEVGA) that suggest the undergraduate and graduate courses across different game design programs range from 3D Modeling, Game Research, Serious Games, to Business of Gaming. The majority of graduates of game design programs are hired by the video games industry. The second largest sector for employment for game designers is education and health. The College of Humanities, Arts, Behavioral, and Social Sciences (CHABSS) and the College of Education, Health, and Human Services (CEHHS) have partnered to lead the development of the program in collaboration with the College of Science and Math (CSM) and the College of Business Administration (COBA).

As part of the proposed program, students will take a set of core courses from different disciplines such as arts, education, computer science, and business to gain a solid foundation in all aspects of game design. They will then pursue an area of specialization in one of the three areas: arts, engineering, and education. Arts and Games specialization courses will cover topics such as 3D Modeling, Animation, Graphics, Music, and Storytelling. Engineering Games specialization courses will cover topics such as software development, software publishing, and artificial intelligence. Games for Education and Health specialization courses will cover topics such as learning and cognition, assessment, and human-computer interaction. The program will also include a capstone course and a practicum course where students will work with industry partners to further their skills and create their own video games.

As a reflection of its interdisciplinary nature, the proposed program will offer an intercollege degree and will be self-funded through Extended Learning. It will require students to complete a total of 120 units: general education (51 credit units), foundation courses (30 credit units), and specialization courses (18 credit units). 21 credit units will be reserved for electives or a minor; students can pursue outside of game design. The southern California region is home to more than 200 video games and educational games and technology companies that are looking to fill a wide range of positions. The graduates of the proposed Game Design Studies bachelor's program will be qualified to meet the demand in the job market and the program will help students launch an exciting career in game design.

2. <u>Mission</u>: How will this program benefit the college, university, region and/or state? How is it aligned with the College and University Mission and Vision?

As a Carnegie-classified "community engaged" university, CSUSM is committed to enrich the cultural life of our region and state and to serve the needs of the community. The Game Design Studies program aligns with this commitment by responding to the needs of the local businesses that are looking to hire highly qualified workforce in

game design. Further, the program's design and technological focus is an indication of CSUSM's dedication to innovative curricula and the adaptation and application of new technologies. The university's vision statement pronounces, "Students will select from a growing array of specialized programs responsive to state and regional needs." The state of California has the highest number of video games and educational technology companies in the country.

Our curriculum will emphasize a strong foundation in the liberal arts, learning sciences, and computer science while helping students develop the knowledge, skills, competencies, and experiences needed in a constantly changing world by learning to create games that raise awareness, teach skills, and solve problems in an environment where student collaboration, teamwork among faculty, and partnership with the industry are central practices.

Inclusiveness is one of the values of CSUSM and is at the core of the design of the Game Design Studies program. Less than 20% of women pursue computer science and engineering degrees while women make 31% of the enrollment in game design programs (HEVGA, 2015). This suggests that there is a need to have a separate game design degree to broaden the participation of women in game design. That said, video game industry lacks gender and racial diversity. The focus of the proposed Game Design Studies program on making a social impact through games aims to broaden the participation of students with a diverse background in game design by foregrounding games as a medium of culture, identity, and self-expression and a vehicle for real world change. This unique approach separates the proposed Game Design Studies program from other programs that position game design as a technical field and as such persistently creates a glass ceiling for women and minorities. The goal of the Game Design Studies program is to shatter this glass ceiling by creating multiple pathways to a career in game design and providing a meaningful social context within which students develop technical skills as a tool to enact their passions to create, educate, and change the world.

To this end, the College of Humanities, Arts, Behavioral and Social Sciences (CHABSS) and the College of Education, Health, and Human Services (CEHHS) will lead the game design studies program in collaboration with other colleges at CSUSM. The mission of CHABSS is to provide an inclusive, rigorous, and collaborative learning environment to help students to see themselves and the world in new ways and develop innovative practices, critical thinking, cultural intelligence, and creativity. The Game Design Studies program fulfills and expands upon this mission through the coursework that draws upon different disciplines under a vision for "games for change" and "games for impact," and the opportunities for students to work with a diverse group of faculty members to realize the potential of video games for individual expression, social good, and technological innovation.

The focus on "games for change" and "games for impact" also aligns with the commitment of CEHHS to diversity and equity through curriculum and program development, instructional, and assessment strategies, and recruitment and retention practices. Further, the mission of CEHHS is to educate students to serve as agents of change in their workplaces and communities, and engage reciprocally with local, regional, and global communities. The Game Design Studies program advances this mission by fostering inclusiveness and promoting social justice and educational equity and advancing innovative student-centered practices.

3. **Demand**: What evidence is there of adequate student demand for this program?
Of the CSU campuses, Chico offers a BS in Computer Animation and Game Development, Monterey Bay offers a BS in Computer Science with a focus on Game Development, and San Bernardino provides a BA in Computer Systems with a Game Development Option. No campus offers a game design studies program with a focus on "games for change" and "games with impact," leveraging technical education with a humanities-oriented emphasis on meaningful social and educational outcomes through the development of games. The proposed program fills a regional gap and offers CSUSM students the opportunity to distinguish themselves as truly interdisciplinary, technologically, and excellent problem-solvers.

The existing local options for studying game design include feeder community college Palomar College's Video Game Developer certificate program and the Art Institute of California in San Diego, a for-profit trade-focused school that offers a BS in Game Design. Palomar's certificate program is an optimal feeder program for a CSUSM degree. A game design program at CSUSM would attract many students who are unable to meet the high cost of tuition at the Art Institute. The community college Miracosta has a Media Arts and Technology program, from which students could transfer to CSUSM to focus on game design. Overall, there is nothing similar in scope or focus

to the interdisciplinary, impact-oriented program projected for CSUSM; with this degree program, CSUSM would become the go-to regional destination for creating conscientious games.

Besides filling a gap for local students interested in game design and specifically in developing games that engage with social issues, CSUSM's program would help to fill a regional employment gap. The following information, taken from The Advisory Board Company's 2016 Brief on the Market Viability of Video Game Design Degree Programs in the Southern California Region, indicates a local demand for video game designers and undergraduate-level video game design program would satisfy employer demand and achieve higher enrollment rates.

"Growth in regional employer demand for bachelor-level video game design professionals between July 2013 and December 2015 indicates a demand for educational opportunities in game design at CSUSM. Job postings show a 20 percent increase in regional employer demand for professionals with a bachelor's degree in video game design and a 38 percent increase in national employer demand. Due to low employer demand, more students enroll in video game design programs at the bachelor's level than at the graduate-level."

According to this report, companies seek video game design professionals with bachelor's degrees more than any other degree level. Video game design positions that require a bachelor's degree account for over 80% of relevant regional job postings and 84% of national job postings. Areas that require high school or vocational training comprise 11% of relevant local job postings and 6% of national job postings.

Likewise, there is a growing demand for the acquisition of innovative technological skillsets among CSUSM students. Particularly, the School of Arts' Arts and Technology program, School of Education's Educational Technology program, and the Computer Science program target these skillsets as student learning outcomes. The Arts and Technology computer lab courses regularly fill and can have wait lists of up to 20 students each semester some of whom would be interested in pursuing a career in game design. The Video Games, Learning, and Literacy course where students learn about video games and video game design offered through the School of Education attracts undergraduate and graduate students across different disciplines (approximately 25 students per semester). The Game Programming course offered through the Computer Science Department attracts about 40 students per semester. Further, in the last three years, Dr. Sinem Siyahhan, Educational Technology and Learning Sciences faculty in the School of Education, has been running game design afterschool programs in middle schools in North County San Diego. These programs consistently have high enrollment. There is an interest among K-12 educators to integrate game design into the curriculum and encourage students to pursue a college degree in game design, suggesting a potential pipeline for the proposed Game Design Studies program.

4. <u>Resources</u>: Give preliminary estimates of the following resources needed to implement the program:
- Additional faculty positions;
- Additional resources required for program administration (e.g., release time for a Chair or Director);
- Additional staff support;
- Additional space requirements; and
- Additional specialized equipment and materials other than those expected to be provided by the Library and Instructional and Information Technology Services (IITS).

The proposed Game Design Studies program will incorporate existing courses that are already taught by CSUSM faculty and implement new courses. Specifically, several existing courses in computer science and business administration would meet the needs of the game design studies program. Further, CSUSM is in the process of developing an engineering program with a focus on computer and software engineering, which will also support the technical needs of the game design studies program in the future. The different disciplines across colleges may offer courses for their major requirements that would also be part of the foundation courses of the game design program. The utilization of the existing classes will minimize the impact of the program on the faculty course loads increase.

The new course development will be specific to game design in the areas of arts, learning sciences, serious games, and human-computer interaction. For example, games and society, educational games, interface and level design for games, and games research and user testing would be courses that are unique to the game design program. One tenure-track faculty in the School of Arts and one tenure-track faculty in the School of Education with expertise in game design will develop these courses and teach at least one course per semester. Game design-specific

coursework, particularly at the upper division level, will require two additional tenure-track faculty positions and four lecturers, which would be funded by the Extended Learning.

Released time for program coordination is two-course releases per academic year for 2 faculty members. Program coordination and additional staff support will be included in the self-support budget model.

To roll out the program, staffing will be required for recruitment and marketing efforts. Space will be limited to existing classrooms and computer labs across campus. Course scheduling in the School of Arts computer labs and the two Mac computer labs located in the University Hall will be organized around the existing schedule, with most game design courses in this area offered in the mornings and weekends, when there are openings in the schedule.

There is no specialized computer equipment for the program except the purchase of game design specific software and additional server space to run and publish games. The existing green screen filming room in Kellogg Library could include an additional Virtual Reality (VR) and Augmented Reality (AR) support to be used by the game design studies students. The funding model through EL will include support for other equipment and resources available to students and faculty through IITS and the library.

5. <u>Relation to Existing Programs</u>: Describe the potential effect on existing programs (e.g., enrollment changes, opportunities for collaboration, resources).

There is no foreseeable negative effect of the proposed Game Design Studies program on existing programs. Although we expect some students who are currently in the arts and the computer science to pursue game design, the broad scope of the game design program will attract a different group of students, who pursue a strictly art, social sciences, or computer science degree. These disciplines offer a variety of career paths, and each discipline individually has little overlap with game design as a field of study. The only possible effect of the Game Design Studies program is around the number of students who are taking existing computer science and business courses. The effect of the increase in the number of students who take these courses could be small or large depending on the number of students enrolled in the Game Design Studies program.

As we stated throughout this document, the field of game design is inherently interdisciplinary, and the proposed Game Design Studies program reflects the field. Further, the degree students will receive when they graduate from the program reflects the interdisciplinary nature of their education and suggests their readiness to join the game design industry. There are many opportunities to collaborate among faculty and between the university and the industry partners. Faculty in the CHABSS and CEHHS are taking the lead to craft the pedagogical framework of the program and create game design courses specific to the program but will work closely with CSM and COBA to ensure that the Game Design Studies program provides high-quality education to all students, creates multiple pathways to a career in game design, and produces graduates students who are competitive in the job market.