Bachelor of Science in Computer Game Design Self-Study Report

September 2024

Beacom College of Computer and Cyber Sciences

&

College of Arts and Sciences

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Part 1: Institutional History

1.1 Heritage: 1881 to 1982

Dakota State University (DSU) was established in 1881 as the first teacher education institution in Dakota Territory. Teacher education remained the primary mission of the institution through the 1950s. However, in response to the changing needs of South Dakota in the 1960s, the university began to expand its role to include degree programs in liberal arts and business. In 1980, South Dakota welcomed a major new industry into the state: the banking and credit card industry. The success and growth of this new industry, as well as the success of other information oriented, computer-based industries in the state, prompted the state's leadership to carefully examine the degree programs offered at the public institutions of higher education within the state.

Throughout its 143 years, Dakota State University has had a proud heritage of preparing graduates to meet the needs of a changing society. Since 1881, the university has provided challenging academic programs in one of the best educational environments in the state. The continuation of this tradition of service is of prime importance to the faculty, students, staff, and administration of DSU.

1.2 Mission Change: 1983 to 1984

In 1984, the Legislature of the State of South Dakota (South Dakota Codified Law §13-59-2.2) assigned Dakota State University the role and mission of developing technology-based degree programs in information systems, business, teacher education, and allied health care services at both the undergraduate and graduate levels. The Legislature provided $2.6 million in additional operating funds to support a three-year mission change at DSU.

During the initial phase of the transition, the academic programs of the institution were reviewed. Degree programs were phased out if they were duplicated at the other five regental institutions or if graduates would enter an over-supplied marketplace. The South Dakota Board of Regents (SDBOR) approved new information systems programs, computer equipment, and facilities for DSU. During the transition, special attention was given to ensure that all students in programs slated for phase out received a full opportunity to complete those programs. To ensure the continuation of education quality, when the number of students continuing in a program became exceedingly small, a special faculty mentoring program was developed.

The second phase of the transition began in August 1984, with the development of degree programs that integrated computers and information technologies into traditional academic subjects and added coursework specific to the computer and information systems areas. The University hired new faculty and retrained existing faculty.

Realizing that the innovative programs being developed at DSU were expensive, private industry and state government provided the University with additional financial resources. Consultants

from state agencies and from national corporations also provided assistance and guidance that contributed greatly to the success of the mission change.

1.2.1 Mission Statement by South Dakota Codified Law §13-59-2.2

The primary purpose of Dakota State University at Madison in Lake County is to provide instruction in computer management, computer information systems, electronic data processing, and other related undergraduate and graduate programs. The secondary purpose is to offer two-year, one-year and short courses for application and operator training in the areas authorized by this section.

This authorization includes the preparation of elementary and secondary teachers with emphasis in computer and information processing.

Except for degree programs in existence during the 1983-84 academic year, the unique baccalaureate programs authorized for Dakota State University shall not be duplicated by the Board of Regents.

1.2.2 Mission Statement by South Dakota Board of Regents, Policy 1.2.2 updated Oct 2023

Purpose

The South Dakota Board of Regents regards the special focus universities of South Dakota as valuable contributors to the state's system of higher education. Special focus universities have a high concentration of degrees in a single field or set of related fields. Special focus universities offer master's and doctoral programs within their special focus area.

Universities operating within this sector are nationally recognized to promote research activities of their faculty, staff, and students. Dakota State University's research is propelling the workforce, economy, and student experience. The Board of Regents recognizes that special focus universities have unique characteristics and are critical to the success of the South Dakota system of higher education.

The principles outlined in this policy serve as overarching directions for special focus universities reflecting efficient and effective roles in scholarly research and economic development. In addition, special focus university functions align with the Board of Regents strategies to advance student access, affordability, degree completion rates, and quality education.

Dakota State University Organizational Structure

1. Main Campus (Madison): The Dakota State University's (DSU) main campus located in Madison serves residential students in undergraduate, professional, and graduate programs. The campus includes the colleges of Arts and Sciences, Business and Information Systems, Education and Human Performance, and The Beacom College of Computer and Cyber Sciences.

2. National Presence: Dakota State University offers specialized degrees to students from across the United States and beyond. DSU shall be the computing and information technologies and cyber security leader for the state of South Dakota, and a recognized leader across the United States.

Academic Curriculum and Credentials

DSU is statutorily authorized under SDCL § 13-59-2.2 to offer academic programs computer management, computer information technologies, cyber security, education with an emphasis in computer and technology systems, and other related undergraduate and graduate programs. Students who attend Dakota State University pursue highly technical degrees with a broad focus in current and emerging computing and information technologies/cyber security that emphasize innovation, leadership, application, and research. DSU has the authority to credential certificates, associate degrees, baccalaureate degrees, master's degrees and doctoral degrees provided formal approval by the Board of Regents. The Board of Regents may authorize academic programs outside of the statutory mission as identified by the Regents due to workforce needs, strategic needs of the state, etc. All program requests must comply with BOR Policy 2.3.2 and 2.3.3.

Research and Economic Development Special research focus universities in South Dakota perform a wide range of research initiatives. While Dakota State University has an emphasis in the areas of Computer Sciences, DSU's educational and research activities address all aspects of current, emerging, and future Computer and Information Technologies/Cyber Security. Dakota State University's research provides the maximum opportunity to students seeking to study with top researchers and pursue careers related to the technological fields. This is most important for those students pursuing graduate education. DSU conducts (3) three types of research increasing student growth which results in discovery, creativity, or innovation: ***f***aculty-driven discipline-specific research; collaborative, problem-driven applied research in all CIT/Cyber Security areas through the Madison Cyber Labs (MadLabs®)**.**

Regionally located in eastern South Dakota provides a unique hub where Dakota State University and South Dakota State University (also regionally located in eastern South Dakota) complement each other in Agricultural Technological fields. Collaborative partnerships continue to evolve between the special focus universities and the research universities. This research pierces the boundaries in generating new innovative ideas. In addition to providing graduate student experience, research is a critical driver of both innovation and economic development.

Working together with business and industry in Madison, Sioux Falls, and all of South Dakota, Dakota State University will foster continued research in South Dakota, economic development in South Dakota, and innovation throughout the United States. Specifically related, Dakota State University offers highly specialized research in support of national security and defense through DSU's Applied Research Lab (ARL). The research activities of the MadLabs® and ARL drive innovation, workforce development, and economic development for South Dakota.

1.2.3 DSU Institution Mission, Vision, & Values

Mission. DSU's mission is to prepare cyber-savvy graduates who are lifelong learners, problem solvers, innovators, and leaders to live lives of positive purpose and consequence.

Vision. Innovative, entrepreneurial, and resilient since 1881, DSU will continue to rise through short - and long-term success of our students and graduates, increased strength in applied research and athletics, and deep engagement with our stakeholders, in an environment infused with quality improvement.

Values. DSU adheres to the following values:

- Distinguished and effective teaching
- Integrity
- Clear communication
- Innovation
- Inclusion
- Quality

1.2.4 Strategic Plan DSU ADVANCE 2027

Dakota State University's strategic plan begins with its mission, vision, and values that create a framework for university strategic goals. The strategic plan is built on the university's strengths and focuses attention and commitment on the most pressing issues DSU is distinctively positioned to address while seeking to advance student success through highly engaged, high-impact educational practices.

The current Strategic Plan *DSU ADVANCE 2027*[1] began in 2022 and will continue to evolve through 2027 and beyond. The Strategic Plan outlines a path to more direct scholarship, research, intellectual property, and economic development through solutions to all varieties of cyber threats to computing and information devices, networks, and their users. Both foundational goals and the five Pillars further frame actions, resources, and measures.

Foundational goals support strategic goal success:

- Ensure Financial Stability
- Strengthen Regional and National Relevance
- Enhance Ability to Recruit and Retain Talent
- Increase Student Enrollment
- Enhance Student Success
- Maintain Higher Learning Commission Accreditation
- Ensure Responsible Stewardship of State Resources

[1] DSU ADVANCE Strategic Plan 2022-27

- Strengthen Risk Management Process

Five Pillars frame the focus of strategic goals and milestones (benchmarks):

- Pillar 1: Increase Student Success
- Pillar 2: Improve Engagement, Governance, & Communication
- Pillar 3: Grow Scholarship, Research, Intellectual Property, & Economic Development
- Pillar 4: Elevate Athletics
- Pillar 5: Increase Sustainability & Resilience

Mission and strategic plan alignment gave DSU its first graduate degree programs when authority was received from the South Dakota Board of Regents to offer a Master of Science in Information Systems (1998). A year later, the Master of Science in Educational Technology was offered on campus (1999). In 2004, DSU received authorization for its first doctoral program, offered in Information Systems. DSU now offers four doctoral degrees, nine master's degrees, and eleven graduate certificates. As the institution endeavors to articulate its mission in the fullest way, degree programs are scrutinized each year to ensure they remain on the forefront relative to technology to enhance and support instruction and address work force demands.

DSU currently holds three prestigious designations from the National Security Agency (NSA) and the Department of Homeland Security (DHS) as National Centers of Academic Excellence (CAE) in Cyber Defense, Cyber Research, and Cyber Operations. DSU received its first CAE distinction in Information Assurance Education in 2004, one of 50 programs recognized. DSU was named as a National Center of Academic Excellence in Cyber Operations (CAE-CO) in 2012, one of the first four schools to receive the CAE-CO designation for the 2012-2013 academic year. As of December 2023, there are currently 436 institutions with a designation, including CAE-CD, CAE-R, and CAE-CO, from the National Security Agency[2]. There are only 20 institutions that hold CAE-CO designations. DSU is one of only ten universities in the U.S. that holds all three National Security Agency Center for Academic Excellence in Cybersecurity Designations in Cyber Operations, Cyber Defense, and Cyber Research (CAE-CO, CAE-CD, and CAE-R).

1.3 DSU Initiatives

1.3.1 DSU Rising Initiative

In 2017, Dakota State University began a transformational five-year capital investment initiative called DSU Rising. The initiative was the result of a $30 million donation from philanthropists Miles and Lisa Beacom and Denny T. Sanford. The donation allowed for the construction of an $18 million, 40,000 square foot research and development building for the Madison Cyber Labs (MadLabs). The funds also provided for additional scholarships, new program development,

[2] CAE Institution Map

hiring of more faculty and staff, and support the university's intent to bring 5G network capabilities to Madison, the region, state, and eventually the nation.

1.3.2 DSU Rising II

The DSU Rising II project (2022) created a funding consortium to provide $90 million to fund new components to the cyber research and education environment: a 100,000 square feet facility to house the expanded DSU Applied Research Lab (ARL) in Sioux Falls, S.D., the support required to double the DSU cyber graduates, authority to expand DSU ARL Management and Security, to expand merit based student scholarships in cyber education, and to launch the Governor's Cyber Academy (a statewide K-12 cyber education program).

1.4 University Student Demographics

The total headcount for Fall 2023 was 3,509, an 8.3% increase from 3,241 in Fall 2022. The number of graduate students for Fall 2023 was 558, an increase of over 15% from Fall 2022. Section 4.2 contains additional demographic information that contains a breakdown of students by gender and ethnicity for the BSCGD program, The Beacom College, and the University.

1.5 Computing Environment Changes

Students at DSU enjoy unique access to technology. In 2005, all students were provided fully functional portable computers (tablets) that included digital inking capabilities and voice-to-text translation. Currently, DSU provides students with the latest Dell Latitude 7440, a 2-in-1 Laptop configured specifically for DSU academic programs.

For degree programs emphasizing information assurance, security issues, and digital design, additional lab facilities featuring computers with high end functionality have been added to the campus technology infrastructure.

1.6 Accreditation History

Dakota State University is accredited by the Higher Learning Commission (HLC), founded in 1895, and is one of several institutional accreditors in the United States. HLC accreditation indicates that DSU has the standards, processes, and assurance that it delivers quality educational experiences. DSU must meet 18 core components within the five HLC Criteria for Accreditation.

The university completes periodic reviews for reaffirmation of accreditation through HLC's Open Pathway, a ten-year cycle with an assurance review in year four and a comprehensive evaluation in year ten. The Open Pathway also includes an improvement component, the Quality Initiative, between years four and ten, that provides DSU the opportunity to pursue improvement projects that meet institutional needs.

The institution's most recent comprehensive visit, in October 2018, resulted in a positive review without any requirement for monitoring reports. In October 2022, DSU also met all 18 core components during its mid-cycle assurance review.

1.7 College Missions

The Computer Game Design degree is an interdisciplinary program that is divided between The Beacom College of Computer and Cyber Sciences and the College of Arts and Sciences. The missions of the respective colleges are presented below.

1.7.1 College Mission – The Beacom College of Computer and Cyber Sciences

The mission of The Beacom College of Computer and Cyber Sciences is to educate and prepare students to be lifelong learners and professionals in Computer and Cyber Sciences. We seek to challenge students to develop skills in computer and cyber sciences, to think logically, and to make sound decisions through our five major academic programs: Artificial Intelligence, Computer Game Design, Computer Science, Cyber Operations, and Network and Security Administration.

Aligned with its mission, The Beacom College offers Ph.D.s in Cyber Operations, Cyber Defense, and Computer Science; master's degrees in Artificial Intelligence, Computer Science, and Cyber Defense; and baccalaureate degrees in Artificial Intelligence, Computer Game Design, Computer Science, Cyber Operations and Network and Security Administration. Also, the college offers an Associate of Science degree in Network and Security Administration and Software Development which articulates with the related four-year degree.

In addition to course work in the academic setting, The Beacom College provides opportunities for students to learn through work and consulting experience. Internships and supervised professional practices are available in most programs.

1.7.2 College Mission – College of Arts and Sciences

The mission of the College of Arts and Sciences is to educate and prepare students to be lifelong learners and professionals in a variety of disciplines including biology, computer game design, cyber leadership and intelligence, digital arts and design, English, and mathematics. Students are challenged to develop the necessary skills in their respective area, to think logically and critically, and to make sound decisions. Faculty expertise and the integration of technology in all programs provides the foundation for Dakota State University’s College of Arts and Sciences degree programs.

In addition to the Bachelor of Science majors listed above, the College also offers several minors, including art, audio production, biology, chemistry, communication studies, computer graphics, digital photography, English for new media, history, math, multimedia/web design, physics, 2-D and 3-D production animation, professional and technical communication, sociology, Spanish, and video production. A number of certificate programs are also available including digital photography, English for new media, mathematical foundations of cryptography, multimedia, multimedia design and production, professional and technical communication, and website design and development.

The College of Arts and Sciences provides opportunities for students to learn through work experience and supervised professional practices. Internships and undergraduate research/scholarship are available in most programs.

1.8 History of the BS Computer Game Design Degree at DSU

Dakota State University developed a Bachelor of Science in Computer Game Design (BSCGD) in 2008 as a continuation of the 1984 Mission Change. The program was an explicitly interdisciplinary program, jointly housed in both The Beacom College of Computer and Cyber Sciences (then part of the College of Business and Information Systems) and the College of Arts and Sciences.

- The BSCGD Program is a program in Computer Game Design and **Development** - which emphasizes the aspects of integrated or systemic design essential to the making of computer games.
- The program has leveraged existing course resources in both computing and design when possible. As a result, the curriculum has three "cores" - one in art, drawing mostly on ARTD courses; one in computing(coding), drawing mostly on Computer Science courses; and finally, a core specific to game design and development and the application of the skills learned in the other cores to the creation of games.
- There has consistently been an essential focus on systemic, integrated design of games, which includes all aspects of game development and a recognition that design tradeoffs are pervasive and often usefully applied across diverse disciplines.
- Within the game specific core there has also been an emphasis on soft skills essential to game development: teamwork, communication, and problem solving. These soft skills have proven to be attractive to potential employers.

1.9 Prior Institutional Review of the Computer Game Design Program

The following list identifies issues that were noted in the previous BSCGD program review and actions that have been taken to address those issues both indirectly and directly.

To begin, the situation at Dakota State University concerning the Computer Game Design program has changed since the last audit visit. Some of those changes are explained below, but in general, there have been significant changes in the past four years. A few of these changes are:

- Two new faculty members are now teaching the core courses in the Game Design program. Peter Britton and Erik Pederson are the current faulty responsible for covering all the core courses being taught in the program. Peter brings a very high technical understanding of all aspects of game design and is an Indie Game Designer himself, and Erik brings core Game design experience having been a principal member of a game studio start-up that created commercial projects for many different publishers and platforms. Their combined experience has demonstrated an excellent working environment and their skillsets he been very complimentary for the program. Both Peter and Erik were hired at the height of the COVID-19 pandemic and have worked well together to keep the program moving in a positive trajectory. They have

worked closely together to continuously raise the bar for game design at DSU and in South Dakota.

- Peter Britton has improved the technical education of the program exponentially by being a Unity developer, and technical digital artist. The program has advanced its technical presence to the point of graduates learning how the engine works and is used to create game and simulation prototypes.
- Erik Pederson brings years of experience in team formation, production management, and business development from Indy games. Direct experience has been necessary in bringing the "whole package" to the students.
- Leadership changes in administration are constant and have been very supportive to the program. Equipment purchases have been made to bring the technical level to a high educational standard. Both the Schools of Arts and Science and the Beacom Institute have supported changes from curriculum advancement to program evolution.
- Student project teams, composed of both junior and senior level students, under supervision from the game Design faculty, have published multiple games for public consumption.
- By hiring the current game design faculty, the program has been very successful in growing its reputation by being an inclusive entity. Other programs that have been included in its reputational expansion include the arts programs and faculty, business programs and faculty, psychology faculty, and computer science programs and faculty.
- Peter and Erik have been instrumental in bringing in potential students, to increase enrolments and to aid in the diversification of the program itself. They make every attempt to be present to discuss the program and answer questions for potential students and parents.
- In the last four years, DSU has increased the female population in the program from zero (0) to the current 13. Female students are also represented in the project teams, another major accomplishment.
- Faculty host a career camp session for high school and junior high school students (100 regional students) in July to expose them to the potential careers in game design.
- Core game design faculty are consulting with game design programs, courses, and faculty from regional high schools to increase awareness and to help prepare them for teaching game design topics and opportunities.
- The core game design faculty work with marketing to promote the program, students, graduates, and Dakota State University, both internally and externally to market the program (TV interviews, press releases, promotions, promotional materials, etc.).
    - Core faculty are also the main go-to when helping the students prepare resumes, websites, and in assisting in prepping them for graduation or interviews.

The following list highlights and addresses specific identified issues from the last BSCGD program review and actions taken to address those issues.

New Game Lab Suite in the Beacom Institute of Technology has addressed the space needs.

The Game Design Program has a main room (most of the classes take place there) that offers flexibility and space for up to 30 students. The room includes projectors and offers flexible tables, monitors, laptop plugin locations, etc. Faculty change the layout of the environment to suit requirements. During the week it is in constant use. Students also use the room for gathering, work, and play when it is not in use for classes. All the game design students have access to the room with their key passes.

There are four smaller breakout project rooms adjacent to the main room that the student teams use for more intimate development space. There are large monitors, plug-ins, and doors for more specific applications.

The rooms are adequate currently for the student population. Expansion of the program will require more space. There are currently 8 (Fall 2024 Term) project teams that are using all the space.

CGD faculty has completed the recommended curriculum modifications, which are now part of the academic catalog.

CGD has seen changes in its evolution in the past seven years.

DSU is now using a catalog covering 2023-2024 Year. There have been many modifications to the program in the past 4 years. All the changes have been to bring a continuous improvement cycle to the program. An example of a minor change is redefining prerequisite courses to order them more effectively.

An example of a major change is to add a Games Business course that covers the basics of the industry as a business. The course looks at both the AAA and the Indie games scenes, and has students develop business plans and approaches current subject such as unions, diversity, remote and onsite work, salaries, etc.

Faculty have worked with students to facilitate travel to industry events such as the Game Developers Conference and the East Coast Game Conference.

Core faculty work constantly with students to encourage their participation in industry events and available opportunities. A short list of these includes conventions, regional events (both DSU and others), etc. In addition, participation in the Global Game Jam is encouraged and supported by core faculty.

In the last four years, students have been on their own to attend conferences such as GDC.

Last year (Fall 2023), one of the game design students participated in a study abroad program.

Faculty continue to bring outstanding speakers to participate in the annual workshop on Integrated Design in Games (IDiG) held each fall.

The Covid epidemic (2020), new faculty, revised program, and core faculty workload ushered in the end of the IDiG workshop at DSU four years ago. To make up for this, core faculty have brought guest speakers to the program via zoom presentations. This methodology allows for a wider reach of industry talent, as well as easier scheduling for participants.

The game design club is working towards IGDA membership and is currently investigating how it would function on the DSU campus.

Discussions have been initiated with College of Business and Information Systems (BIS) faculty regarding entrepreneurship and with Beacom College faculty regarding camps and other activities which might increase gender diversity.

This is ongoing, and with the involvement of the core faculty with the admissions team, the current female population has risen from zero four years ago to 13 currently. It remains a key focus of the faculty to increase this number.

Part 2: Trends in the Discipline

The game design industry moves quickly and experiments with many different software, hardware, and design techniques and methodologies. Some of these are successful and some are not. Finding and focusing on one set of parameters that define this evolutionary process of game design and how education can meet this process is impossible. The following short set of recent publications demonstrates many of the areas that the industry is experimenting with and their potential impact upon the direction and short-term focus. The links are included below and Dakota States' efforts to meet them are explained in the sections that are applicable.

The top trends identified can be applied throughout the industry, from local/regional aspects to international game design trends. Dakota State's game design the faculty's approach the current industry trends whenever possible, from curricular changes and modifications to in class assignments, exercises, and applications.

Forbes Top Trends in Game Development

https://www.forbes.com/sites/bernardmarr/2023/09/29/game-on-the-top-10-video-game-trends-in-2024/?sh=25ab9877381d

Game Analytics – Industry Trends

https://gameanalytics.com/blog/gaming-industry-trends-2024/

Game arts: 5 trends for the Future

https://www.cca.edu/newsroom/5-future-game-design-trends/

The following is a list of current industry trends and Dakota State's responses and challenges to each of them. Each trend is identified in the list, followed by a description of how the Game Design Program and faculty have/are working towards responding to it.

A short summary of the top Game Design Industry trends from the above and other sources includes:

- **Growth and expansion of the AR/VR (Augmented Reality/Virtual Reality) applications**

  Dakota State's faculty have added the development for the AR/VR technology into the classroom via developing a student project for the Oculus Platform. Components of this development have included DSU purchasing two headsets and associated hardware for the student teams to use in development. The student team was able to complete an immersive and interactive project focused on combining ingredients to create potions (Cauldron Craft). The project was completed as part of the GAME 334/445 Course Development Cycle.

The principal drawback is the difficulty of faculty working with student teams in the classroom setting that require very different skillsets for different projects. This puts stress on the faculty in working with so many projects and technologies at the same time. This is a common theme for the program in general.

- **Use of AI (artificial Intelligence) in game design**

  The use of AI in developing games will increase exponentially in the future, this is owed to the time and cost savings that all levels of studios are taking advantage of. To incorporate these technologies into the curriculum, several classes are experimenting with their use. Game Genres, Worldbuilding, and Game Narrative have experimented with different packages to see how they can be applied. The overall goal is to expose (at a minimum) students to the technology and use it in a productive way. The core faculty recognizes that the graduates must be exposed to the overall implications of AI to be successful in this industry.

- **Retro Gaming and Remakes**

  Retro gaming and remaking of older "classic" video games has been and continues to be on the rise for the game industry. As the technologies become easier to learn, there are wide avenues for profit in remaking old classic products (sometimes remaking them for large profit margins). DSU project teams have taken this on and have tried to recreate old classics like Pole Position. The next semester (Fall 2024) one of the project teams, under faculty supervision, will be working on a retro remake of the FPS Hexen (Raven Industries/ID Software.

- **Collaborative Gaming/Player Engagement**

  Multi-player games and interactive software that require multiple inputs from "players" to complete tasks or play are becoming more plentiful for many different platforms. This trend is skyrocketing currently, with players together in the same environment and in completely different locations (remote). The ability to construct interactive digital content that explores this concept is being applied directly in the classroom by the DSU faculty, as several of the student design projects rely on multiplayer interactions, both working on situations together and opposed.

  Sociological aspects, types of governments, economic design, trade routes, geography, history, and many other topics are discussed. These are all just baselines for the students to understand how an interactive world environment works.

  In the Narrative Games course (GAME 366), psychology faculty have been guests to discuss how character development is tied to personality. While not tied directly to worldbuilding, character creation works hand in hand with development of believable game worlds and environments.

In the Spring 2025 and Fall 2024 semesters, the program has an independent study course that will focus directly upon supporting the project courses where students in the course will serve as digital media managers under the supervision of core faculty, assisting with posting and exploring opportunities both internally and externally for media outreach. The types of outreach include interacting with content players, working as marketing managers, assisting in creating and distributing digital content and advertising for the projects and the program.

- **Bigger and more Immersive Game Worlds**

  Typically limited to PC or Massive Online Games, Large immersive game worlds are becoming the norm, particularly for the AAA design studios. Games like God of War and Baldur's Gate 3 have demonstrated the giant amount of game content that is required to create an all-immersive world. Faculty at Dakota State are aware of this "expansion" and are addressing it by discussing the idea and exploring the limitations and requirements. The World Building course directly addresses these concepts and incorporates constraint-based development to teach the students these concepts.

- **Developing for a New Generation of Portable Gaming Devices and Hardware**

  The game design industry is at the leading edge of technology and technological evolution. To meet this ongoing movement, DSU staff stays current on the current projection of the industry. In the past few years, DSU has purchased and implemented development with the MetaQuest 3 hardware. In the Fall 2023 and the Spring 2024 semesters student teams have developed a VR game that creates potions in an immersive and 3D environment.

  DSU has invested in several game consoles that are used for digital project development along with developing for the PC platform.

  DSU has also purchased the Steam deck, and all student projects are required to upload to that hardware. Admissions has also done the same, using it as a promotional tool, as well as a potential training device for admissions staff.

  In addition to the above, student teams have pitched and be developing interactive software for mobile applications.

- **Alternative funding and distribution Channels transforming Game Designers into Entrepreneurs**

  In the past three years, Game Design Faculty have created a course (GAME 360, Business of Game Design) that students are exposed to the basics of creating and operating a game studio. This course covers topics from searching for potential employees to creating a business plan. Other topics of this course include project

management methods they may experience in the industry and an introduction to how agile development is used in managing content creation.

Also in this course, business faculty are invited to discuss subjects like using LinkedIn and formation of business plans. This has led to a far more solid understanding of how the industry is challenged with constant evolution.

After completion of the projects (GAME 445/GAME 334), student teams are encouraged to take the step in creating a build that is posted for public consumption on platforms such as Steam and Itch IO. Links to some of these products are below:

Mii Scusi - https://store.steampowered.com/app/1763230/Mi_Scusi/

Mi Scusi is a casual adventure game that follows the exploits of Scusi Man as he adventures through many levels, discovering secrets and accomplishing tasks to unlock unique cosmetics and travel to new locations in the wacky world of Scusi.

3 O'Clock Horror - https://store.steampowered.com/app/1683070/3_Oclock_Horror/

This is a Lovecraftian inspired tale of a man writing the horrors of the one night he visited his great uncle's mansion to remember what actually happened at 3 am during the visit.

Knights of the Kitchen Table -
https://store.steampowered.com/app/2016210/Knights_of_the_Kitchen_Table/

Giant food monsters are attacking! As a night of the Kitchen Table, it is your sworn duty to defeat them in this action adventure, hack and slash, souls like game!

Soul Searching - https://store.steampowered.com/app/2136130/Soul_Searching/

In this puzzle stealth game, your soul has been captured by an evil necromancer determined to take over the lands! Can you escape his perilous dungeon home to warn the kingdom before the undead arise and take over the throne?

- **Rise of Independent Game Designers and Studios**

  Dakota state has evolved the Game Design Program towards creating graduates that are capable of functioning in both the AAA game industry and the Independent Games industry.

  The AAA (Large Studio) industry typically relies upon large and very specialized development staff where the development teams perform many small tasks. These are then combined to form larger portions of the product. To accomplish this type of development, developers are highly skilled in a limited number of areas, thus leading to

large design teams. If the students in the program are learning towards a career in the AAA Industry, we work with them to become more specialized in a particular field.

In the Independent Game Industry, developers will wear a larger number of "hats" while in production, lending to everyone needing an increased number of skillsets and a broader knowledge base. Dakota State's Game Design program requires graduates to create art, learn coding, design levels, use a game engine (Unity) and understand the overall studio functioning. The approach requires a broad understanding of all aspects of game design.

- **The Boundaries of Games will Continue to Blur**

  The separation of traditional video games and other forms of communication has become far less defined and will continue to do so. The Game Design Program recognizes this and has been working towards creating an atmosphere where exploration and innovation are essential and encouraged. In 2023, a student team pitched a simulation product for the Minneapolis Children's Hospital that would potentially be used to assist in training new nurses where items were in the hospital.

  In addition to developing more varied projects that address potentially vastly different aspects of digital interactive development, the game Genres course (GAME 366), investigates different types of applications, including serious games. Students are required to develop a concept that approaches a non-entertainment product using the same technology that game development industry would use.

  Another assignment the students were required to complete is a design based upon the architecture of tone of the stairwells in the Beacom Building. This assignment demonstrates the tie between realistic architectural design and believable level design.

2.1 Program Limitations Relative to Trends

Because of the diversity of challenges, and the internal requests for different projects, the core faculty for the Game Design Program (adequate currently) will be overly challenged to remain competitive with the following list. Going forward, the core faculty have limited options for course release or for research time and development. This is the main challenge that the program faces. Maintaining PC, console, mobile, AR/VR, and multiplayer development at the same time is a constant challenge.

Faculty are heavily involved in other aspects of the program as well. These include curriculum management and evolution, course content (up to date and applicable for the current and future state of the industry), focused recruitment of potential students for the program, assisting students in their job and career searches, and professional development (just finding a break to attend a conference like the Game Developer's Conference, or GDC, is a major challenge).

The program currently has approximately 100 students directly in the Computer Game Design Program. There are several courses that are smaller with under 15 students, but there are courses

that are technologically and topics challenging that have over 25 students. The large courses require an amount of 1:1 student time that is difficult to accommodate, splitting the courses into sections will prove difficult if the faculty are already teaching a full semester courseload every semester.

The project courses, which are a key application of effective game development education, require a large amount of time and management from the faculty, and with eight teams (up from 4, to 5, now to 8), the associated time demand of the core faculty has increased exponentially.

Part 3: Academic Programs and Curriculum

3.1 Mission Statement for the BSCGD Program

The BS Computer Game Design degree provides students with the fundamental skills needed to work in video game design, development, and production or in similar areas such as interactive or simulation-based software and digital media. The program is interdisciplinary and requires substantial teamwork from students while they take courses in game design, digital arts, and software design. Core courses include writing, two-dimensional and three-dimensional design, software development, calculus, and physics. Electives enable students to pursue their interests or enhance specific design and development skills.

3.2 Admission Requirements

For admission to baccalaureate degree programs at DSU, high school graduates must either meet the Smarter Balanced or Curriculum required outlined below:

3.2.1 Smarter Balanced

- Achieve a Level 3 or higher on the English Language Arts and Mathematics Smarter Balanced Assessment.

3.2.2 Curriculum Requirements for Admission

- Meet the minimum course requirements with an average grade of C (2.0 on a 4.0 scale); OR
- Demonstrate appropriate competencies in discipline areas where course requirements have not been met; AND
- Rank in the top 60% of their high school graduating class; OR
- Obtain an ACT composite score of 18 (Redesigned SAT score of 950, or concorded equivalent for older SAT scores) or above.
- Obtain a high school GPA of at least 2.6 on a 4.0 scale.

3.2.3 Minimum Course Requirements

All baccalaureate or general studies students under twenty-four (24) years of age, including students transferring with fewer than twenty-four (24) credit hours, must meet the following minimum high school course requirements.

- Four (4) years of English - Courses with major emphasis upon grammar, composition, or literary analysis. One (1) year of debate instruction may be included to meet this requirement.
- Three (3) years of Advanced Mathematics - Algebra, geometry, trigonometry, or other advanced mathematics including accelerated or honors mathematics (algebra) provided at

the 8th grade level; not included are arithmetic, business, consumer or general mathematics or other similar courses.
- Three (3) years of Laboratory Science - Courses in biology, chemistry, or physics in which at least one (1) regular laboratory period is scheduled each week. Accelerated or honors science (biology, physics, or chemistry) provided in the 8th grade shall be accepted. Qualifying physical science or earth science courses (with lab) shall be decided on a case-by-case basis.
- Three (3) years of Social Studies - History, economics, sociology, geography, government, including U.S. and South Dakota, American Problems, etc.
- One (1) year of Fine Arts - Art, Theatre, or music (appreciation, analysis, or performance.) Documented evidence of high school level non-credit fine arts activity will be accepted for students graduating from high schools in states that do not require completion of courses in fine arts for graduation.

3.2.4 Alternative Criteria for Minimum Course Requirements

Students who do not successfully complete four (4) years of English may meet minimum course requirements through one of the following:

- An ACT English sub test score of 18 or above.
- An Advanced Placement Language and Composition, or Literature and Composition score of 3 or above.

Students who do not successfully complete three (3) years of advanced mathematics may meet minimum course requirements through one of the following:

- An ACT mathematics sub test score of 20 or above.
- An Advanced Placement Calculus AB or Calculus BC score of 3 or above.

Students who do not successfully complete three (3) years of laboratory science may meet minimum course requirements through one of the following:

- An ACT science reasoning sub test score of 17 or above.
- An Advanced Placement Biology, Chemistry, or Physics B score of 3 or above.

Students who do not successfully complete three (3) years of social studies may meet minimum course requirements through one of the following:

- An ACT social studies/reading sub test score of 17 or above.
- An Advanced Placement Microeconomics, Macroeconomics, Comparative or United States Government and Policies, European or United States History, or Psychology score of 3 or above.
- An Advanced Placement History of Art, Studio Art drawing or general portfolio or Music Theory score of 3 or above.

3.2.5 Transfer Credits

Dakota State University adheres to SD Board of Regents policies regarding transfer of credits and the determination of course equivalencies as they apply to the student's declared program of study:

- SDBOR Policy 2.2.2.1 Seamless Transfer of Credit[3]
- SDBOR Academic Affairs Council (AAC) Guideline 2.2.2.5.A[4] (Credit by Examination)
- SDBOR Academic Affairs Council (AAC) Guideline 2.2.1.A[5] (Mathematics Placement)
- SDBOR Academic Affairs Council (AAC) Guideline 2.2.1.B[6] (English Placement)
- SDBOR Academic Affairs Council (AAC) Guideline 2.2.2.5.A(3)[7] (Advanced Placement Guidelines)

Students who transfer to Baccalaureate Programs.

- Students who are under the age of twenty-four (24) at the start of the term and who are transferring into baccalaureate degree programs with fewer than 24 transfer credit hours must meet the baccalaureate degree admission requirements.
- Students with 24 or more transfer credit hours with a cumulative GPA of at least 2.0 may transfer into baccalaureate degree programs.
- Specific degree programs may include additional admissions requirements.

Students from Non-Regental Accredited Colleges and Universities.

- Students may be accepted by transfer from other non-Regental universities outside of the SD system. Preferential consideration shall be given to applicants from institutions which are accredited by their respective regional accrediting associations. Advanced standing shall be allowed within the framework of existing rules of each college.

Students from Non-Accredited Colleges.

- A university is not required to accept credits from a non-accredited college of university. The university may admit the applicant on a provisional basis and provide a means for the evaluation of some or all of the credits. Credits from colleges or universities which are not accredited by a regional accrediting association may be considered for transfer, subject to all other provisions in BOR Policy 2.5 and any conditions for validation which may be prescribed by the

[3] SDBOR Policy 2.2.2.1 Seamless Transfer of Credit
[4] SDBOR AAC Guideline 2.2.2.5.A Credit by Examination
[5] SDBOR AAC Guideline 2.2.1.A Mathematics Placement
[6] SDBOR AAC Guideline 2.2.1.B English Placement
[7] SDBOR AAC Guideline 2.2.2.5.A(3) Advanced Placement Guidelines

> accrediting institution. The validation period for credit from a non-accredited institution shall be no less than one (1) semester and no longer than one academic year.

In practice, students who express interest in DSU programs to the admissions staff may provide documentation of prior course work attempted to learn of course equivalencies and remaining degree requirements prior to their initial decision to apply to DSU. These evaluations are completed by the transfer evaluation staff in the Registrar's Office. For course work not previously evaluated and equated, the evaluation staff will share course descriptions with appropriate faculty and seek their guidance on course equivalencies. These decisions are then noted on the initial transfer course evaluation which is shared with the students and subsequently their advisors if the students decide to apply to DSU.

Once accepted, students are placed into appropriate math and English courses based on prior course work completed, high school GPA and/or ACT scores. Students placed below the general education level are provided with remedial course work options or placement testing options. Students who have obtained background and/or knowledge that did not result in transferrable credit may seek options through College Level Examination Program, credit by exam at the department level or through prior learning credit.

3.3 Grading Policies

3.3.1 Course Grades

Course grades are issued to BSCGD students according to SDBOR Policy 2.8.1[8]. Undergraduate grades will be assigned to the undergraduate academic level and to all courses and sections with course numbers ranging from 001 to 499. Plus and minus grades are not used. Table 1 lists the letter symbols that indicate the quality of student academic achievement in courses at DSU.

Letter	Grade Meaning	GPA Implication
A	Exceptional	4.00 grade points per semester hour
B	Above Average	3.00 grade points per semester hour
C	Average	2.00 grade points per semester hour
D	Lowest Passing Grade	1.00 grade points per semester hour
F	Failure	0.00 grade points per semester hour
S	Satisfactory	Does not calculate into any GPA
U	Unsatisfactory	Does not calculate into any GPA
RI	Incomplete (Remedial)	Does not calculate into any GPA
RS	Satisfactory (Remedial)	Does not calculate into any GPA
RU	Unsatisfactory (Remedial)	Does not calculate into any GPA
W	Withdrawal	Does not calculate into any GPA, no credit granted

[8] SDBOR Policy 2.8.1 Grades and Use of Grade Point Averages (GPA)

Letter	Grade Meaning	GPA Implication
WD	Withdrawal (First 6 courses)	Does not calculate into any GPA, no credit granted
WW	Withdrawal (all courses in a term)	Does not calculate into any GPA, no credit granted
WFL	Withdrawal (7th course or higher)	0.0 grade points per semester hour
SP	Satisfactory Progress	Does not calculate into any GPA
AU	Audit	Does not calculate into any GPA
I	Incomplete	Does not calculate into any GPA
IP	In Progress	Does not calculate into any GPA
EX	Credit by Exam	Does not calculate into any GPA
CR	Credit	Does not calculate into any GPA
TR	Transcripted	Does not calculate into any GPA, no credit granted
LR	Lab grade linked to Recitation Grade	0 credit course
NG	No grade - used for registration tracking courses	0 credit tracking course
NR	Grade not reported by instructor	Does not calculate into any GPA
*	Academic Amnesty	Does not calculate in any GPA, no credit given

Table 1. Letter Grades Used at DSU

3.3.2 Grade Point Average Definition

The following grade point averages are calculated each academic term (Fall, Spring, and Summer).

- **Institutional GPA** - based on credits earned at a specific Regental university. Utilized to determine if degree requirements have been met and to determine Honors Designation at graduation.
- **System Term GPA** - based on credits earned at any of the six Regental universities within a given academic term (Fall, Spring, Summer). Utilized to determine minimum progression status.
- **Transfer GPA** - based on credits earned and officially transferred from an accredited college or university outside the Regental system. When a letter grade that normally calculates into the grade point average exists for a non-academic course (e.g., credit earned via examination), it will be included in the transfer GPA.
- **Cumulative GPA** - based on all credits earned by the student (transfer credit plus system credit). Utilized to determine minimum progression status and to determine if degree requirements have been met and to determine Honors Designation at graduation.

When a course has been repeated for credit, all attempts will be entered on the transcript, but the last grade earned will be used in the calculation of the cumulative grade point average.

3.3.3 Grade Point Average Calculation

Any course in which a grade of A, B, C, D, or F is earned is used to calculate the grade point average. Each grade is worth a specific number of honor points: A=4, B=3, C=2, D=1, F=0. The

number of honor points earned for each class is computed by multiplying the points given for the letter grade by the hours of credit in the course. The total number of honor points earned is then divided by the total number of credit hours attempted (includes only those classes in which grades of A, B, C, D, F were earned). The result is the cumulative grade point average.

3.3.4 Academic Probation/Suspension

Minimum Progression Standards. Minimum progression standards and related actions are based on the student's cumulative grade point average and system term grade point average.

- **Good Academic Standing:** A student who meets or exceeds the cumulative grade point average requirements as listed below is considered to be in good academic standing. The Academic Standing process is completed at the end of the Spring term. The required GPAs are based on credit hour completion. Students who have taken more credit hours are expected to meet a higher GPA standard.
    - 0 to 44.9 credits 1.8 GPA needed for Good Academic Standing
    - 45 credits or more 2.0 GPA needed for Good Academic Standing
- **Academic Probation:** If a student's cumulative grade point average falls below the GPA standard for his/her designated class rank as listed at the end of the Spring academic term, the student is placed on academic probation for the following term.

  While on academic probation the student must earn a system grade point average that meets or exceeds the GPA standard required. During this period, the student's academic success team is expected to monitor and meet with the student to best position him or her for success.

  When a student on academic probation achieves a cumulative grade point average that meets or exceeds the GPA standard, the student is returned to good academic standing.
- **Academic Suspension:** A student on academic probation who fails to maintain a term and/or cumulative grade point average that meets or exceeds the GPA standard required by the next Academic Standing process is placed on academic suspension for a minimum of two academic terms.

  A student on academic suspension will not be allowed to enroll for any coursework at any Regental university except when an appeal has been approved by the Regental university from which the student is pursuing a degree. An approved appeal granted by one Regental university will be honored by all Regental universities. (Also refer to BOR Policy 2.2.1, Section C.9.7 Students on Probation/Suspension[9])

  Only academic suspension will be entered on the student's transcript. Academic probation will be noted in the internal academic record only.

[9] SDBOR Policy 2.2.1 System Undergraduate Admissions

> Students enrolled in the Regental system for the first time with prior credit, including internal and external transfer students and dual credit students, shall not be placed on probation by their designated home institution until they have been enrolled at a Regental university for one (1) academic term.

Readmission. A student placed on academic suspension may re-enroll only upon successful petition for readmission to the Student Readmissions Committee. The expectation of the university is that a student placed on academic suspension will sit out at least two academic terms. However, the Student Readmission Committee is empowered to grant immediate reinstatement. Students readmitted from academic suspension enter on academic probation unless they have completed coursework, at another institution, which moves their cumulative GPA above the 2.0 minimum requirement. Students which the committee recommends for readmission must maintain 100 percent class attendance. Classes missed due to illness or emergency circumstances must be reported to his/her instructors at the first opportunity. Students who maintain less than regular class attendance will be administratively suspended. The committee may also specify the courses a student can take and the maximum number of credit hours to be carried by the student during the first semester of readmission.

When petitioning for readmission from academic suspension, the burden of proof rests with the student. The student will be given an appeal hearing if he or she can demonstrate extenuating circumstances that had significant, negative impact upon the student's ability to study, attend classes, and complete assignments. At the committee meeting, the student will be expected to 1) candidly discuss the circumstances that contributed to the academic suspension, 2) provide a plan for overcoming any obstacles to future academic success, 3) demonstrate a firm commitment to repairing your academic record, and 4) provide documentation in support of all claims of extenuation. The burden of proof rests upon the student, not with the committee. Therefore, the student should be prepared to answer any/all questions committee members might have at this meeting, and to offer documentation in support of all important claims of extenuation.

A student who has been readmitted on academic probation from academic suspension and who does not maintain good academic standing may not petition for immediate reinstatement.

3.4 Advising and Career Guidance

3.4.1 Academic Advising

Each admitted undergraduate student at DSU is assigned to a professional advisor in the Academic Support Services for two academic years. If a student meets specific benchmarks, such as completing a minimum of 45 credits, maintaining a minimum 2.4 GPA, and being in good academic standing, the student will transition to faculty advisors at the end of two academic years.

Academic advisors serve as the primary point of contact for students during their time at DSU. Advisors work with each student on transitioning into and through the university, which includes, but is not limited to:

- establishing a strong academic foundation
- setting academic, career, and professional goals
- selecting courses for upcoming semesters
- creating a four-year graduation plan
- improving study skills
- offering referrals to campus resources
- fostering connections within the campus community

3.4.2 Career Guidance

DSU Career & Professional Development offers a variety of services, events, and resources to elevate the student's opportunity for employment upon graduation.

- **Services:** resume building/reviews, internship search, mock interviews, full-time job search and more.
- **Events:** Career & Internship Fairs, Employer Information Sessions, On-campus, and Virtual Interviews, and Employer Lunch & Learns.
- **Resources:** Resumation – resume building tool, Cover letter contents, On-line Workshops, Dressing for Success, Salary Negotiations, Interview Guides, LinkedIn Learning, LinkedIn Profile Guide and more.

Handshake, an online career management system, is available for students and alumni to utilize when searching for jobs and internships. All students have Handshake profiles upon registering for classes at DSU.

Through utilization of the services, events, and many resources, DSU is fortunate to see students in its undergraduate and graduate programs find success when searching for full-time employment. The placement rates were 98.78% and 100% for students who graduated in 2023 in DSU undergraduate and graduate programs, respectively.

3.5 Graduation Requirements

A student who successfully completes the Computer Game Design graduation requirements is awarded the degree of Bachelor of Science in Computer Game Design. DSU Registrar's Office conducts degree evaluation to ensure each graduate completes all graduation requirements for the computer game design program.

3.5.1 Application for Graduation

Each candidate for graduation, including students completing course work off-campus, must apply formally to the Registrar by the deadline specified in the academic calendar. Failure to

meet the required deadline results in the degree confirmation at a later graduation date. The graduation application process is completed online through the student's Self Service Banner account. (see SDBOR Policy 2.6.2 Awarding of Degrees, Graduation Dates, and Catalog of Graduation[10])

3.5.2 Minimum Graduation GPA Standards

To be awarded a baccalaureate degree, an associate degree, or a certificate, a student must at a minimum have a cumulative GPA of 2.0 or higher. With Board approval, additional requirements, including more specific GPA requirements, may be established for some programmatic offerings and these must be met.

3.5.3 Degree Residency Requirements

Dakota State University has residency requirements for baccalaureate majors, minors, and associate degrees to assess, test, and observe students' learning and acquisition of academic skills. A credit in residence within the Board of Regents system is a course offered by any of the degree granting Regental institutions at any approved site using any approved method of delivery. An institutional credit is a credit offered by the degree granting institution and includes credits that are part of a formal collaborative agreement between that institution and another Regental institution. Credit earned for college level courses by validation methods such as Credit by Exam, CLEP, AP, portfolio, etc. within the Regental system will not be considered "credits in residence."

3.5.4 Institutional Credit Requirements for Degree-Seeking Students

Minimum number of credit hours that must be earned from the institution granting the degree:

a. Baccalaureate 30 hours
b. Associate 15 hours

Number of the last credit hours earned preceding completion of the degree that must be earned from the institution granting the degree:

a. Baccalaureate 15 of the last 30 hours
b. Associate 8 of the last 15 hours

Minimum number of credit hours specified in the major or minor requirements that must be completed at the degree granting institution: 50 percent. However, this requirement may be waived for students enrolled in the set of majors offered at the system's Centers which include the established programs of study common courses offered by one of the other Regental

[10] SDBOR Policy 2.6.2 Awarding of Degrees, Graduation Dates, and Catalog of Graduation

universities. In addition, the Vice President for Academic Affairs may make exceptions to this requirement for individuals based on the student's prior learning experiences.

Degree seeking students may complete requirements for a minor at any Regental university that has been approved to grant that minor. This minor will be recorded on the transcript in conjunction with a degree/major at that university or a degree/major at any other Regental university. A minor will only be recorded on the transcript in conjunction with a degree and major.

Student course loan status is based on the number of credit hours for which a student is enrolled.

- ½ Time status 6 credit hours minimum
- ¾ Time status 9 credit hours minimum
- Full Time Status 12 or more credit hours
- Overload Status 19 or more credit hours

To be eligible for overload status, a student must have a 2.70 cumulative grade point average and approval by the Dean of the student's division/college at the home institution.

3.5.5 Program Requirements

Students admitted to Dakota State University are required to declare a major in an academic discipline. Some degree programs require students to seek formal admission to the program.

Candidates for graduation must successfully fulfill all program requirements. A baccalaureate degree requires completing at least 120 semester hours of credit. An associate degree requires completion of the semester hours specified for that program.

A student must have earned both cumulative and major grade point averages of at least 2.00. Certain degree programs have higher grade point averages. Academic Skills (Pre-General Education) courses such as MATH 095 and ENGL 033 do not count toward graduation and are not calculated in hours completed or grade point average.

Returning DSU students, who did not graduate from DSU during their previous enrollment and who have interrupted their enrollment at any Regental university for more than two consecutive semesters, are assigned the catalog in effect at the time of their re-enrollment as their catalog of graduation.

3.5.6 Degree Evaluation

DSU utilizes Ellucian Degree Works[11] for degree evaluation. Degree Works checks a student's course work including:

[11] Ellucian Degree Works Degree Audit and Planning Software

- minimum total credits required.
- minimum credits earned from DSU.
- 15 of last 30 credits earned from DSU.
- meeting the 2.0 minimum overall GPA requirement
- meeting the 2.0 minimum DSU institutional GPA requirement
- meeting the General Education requirements
- meeting major requirements as listed in the section that follows.

The Degree Works evaluations are reviewed by the DSU Registrar's Office to ensure that a graduate fulfills all the requirements.

3.6 Curricular Options within the Academic Programs

3.6.1 Credits Needed for BSCGD Degree

The Bachelor of Science in Computer Game Design (BSCGD) degree program requires 120 credit hours. The required 120 credits include 30 credits of system-wide general education, 67 credits of required courses, and 23 credits of electives.

Computer Game Design majors must take the courses below as part of the 30 credits in the System-wide General Education Requirements.

- ART 121 - Design I 2D
- MATH 123 - Calculus I
- PHYS 111 - Introduction to Physics I

Students may concentrate on a specific area of game development by taking additional courses. To earn an optional Emphasis, students may (in consultation with their program advisor) select and complete 30 credits from one of the Emphasis areas:

- Game Art Emphasis
- Narrative Design Emphasis
- Software Development Emphasis

3.6.2 Required Computer Design Courses

The 67 credits needed for a BSCGD degree are shown below in Table 2.

Course Prefix	Course #	Course Title	Credits
ARTD	186	3-D Animation, Modeling, and Concepts	3
ARTD	255	3-D Character Animation, Rigging and Lighting	3
ARTD	282	2-D Design on Computers I	3
ARTD	285	2-D Design on Computers II	3
		Choose one course from the following:	
CIS	332	Structured Systems Analysis and Design	3

Course Prefix	Course #	Course Title	Credits
CSC	321	Cyber Law and Policy	3
CSC	105	Introduction to Computers	3
CSC	150	Computer Science I	3
CSC	250	Computer Science II	3
CSC	300	Data Structures	3
CSC	334	Web Development	3
GAME	101	Game Design Core Experience	1
GAME	111	Introduction to Game Design	3
GAME	220	Game Programming Tools	3
GAME	222	Computer Game Analysis and Development	3
GAME	261	Worldbuilding	3
GAME	333	Project and Process I	3
GAME	334	Project and Process II	3
GAME	351	Business of Game Development	3
GAME	375	Level Design I	3
GAME	444	Project Development I	3
GAME	445	Project Development II	3
GAME	475	Level Design II	3
MATH	282	Mathematics of Games	3

Table 2. Required Courses in the BSCGD Degree

3.6.3 Courses Needed for the Game Art Emphasis

To earn the optional Game Art Emphasis within the BSCGD program, students can select and complete 30 credits from the courses listed below in Table 3.

Course Prefix	Course #	Course Title	Credits
ART	111	Drawing I	3
ART	122	Design II Color	3
ART	123	Three-Dimensional Design	3
ART	213	Figure Drawing	3
ART	231	Painting I	3
ARTD	185	Introduction to Animation	3
ARTD	245	History of Graphics	3
ARTD	250	2D Digital Animation	3
ARTD	280	Digital Photography I	3
ARTD	286	Motion Graphics and Composting	3
ARTD	356	Digital Painting	3
ARTD	380	Digital Photography II	3
ARTD	388	Environmental Design	3
ARTD	439	3-D Design – Preproduction	3
ARTD	441	3-D Design – Production	3
ARTD	460	Digital Editing	3
ARTD	480	Digital Photography III	3
GAME	491	Independent Study	3
GAME	492	Topics	3

Table 3. Courses for the Optional Game Art Emphasis

3.6.4 Courses Needed for the Narrative Design Emphasis

To earn the optional Narrative Design Emphasis within the BSCGD program, students can select and complete 30 credits from the courses listed below in Table 4.

Course Prefix	Course #	Course Title	Credits
ARTD	185	Introduction to Animation	3
CSC	447	Artificial Intelligence	3
DAD	310	Sound Design for Film	3
GAME	291	Independent Study	3
GAME	292	Topics	3
GAME	360	Narrative Design	3
GAME	363	Game Genres:	3
GAME	366	Contemporary Myth and Media	3
GAME	370	Game Mechanics	3
GAME	491	Independent Study	3
GAME	492	Topics	3

Table 4. Courses for the Optional Narrative Design Emphasis

3.6.5 Courses Needed for the Software Development Emphasis

To earn the optional Software Development Emphasis within the BSCGD program, students can select and complete 30 credits from the courses listed below in Table 5.

Course Prefix	Course #	Course Title	Credits
CIS	484	Database Management Systems	3
CIS	487	Database Programming	3
CSC	403	Programming Graphical User Interface	3
CSC	410	Parallel Computing	3
CSC	433	Computer Graphics	3
CSC	443	Scripting for Network Administration	3
CSC	447	Artificial Intelligence	3
CSC	451	Mobile Development Environments	3
CSC	456	Operating Systems	3
CSC	461	Programming Languages	3
CSC	466	Language Processing	3
CSC	482	Algorithms and Optimization	3
GAME	355	Experimental Games I	3
GAME	356	Experimental Games II	3
GAME	491	Independent Study	3
GAME	492	Topics	3
MATH	201	Introduction to Discrete Mathematics	3
MATH	315	Linear Algebra	3
MATH	316	Discrete Mathematics	3

Table 5. Courses for the Optional Software Development Emphasis

3.6.6 Plan of Study

A sample schedule of how students can earn a BSCGD degree at DSU is shown below in Table 6. Students are not limited to this plan but can use it as a guide to take courses in traditional Fall and Spring semesters to graduate in four years.

Course	Prerequisites / Comments	Credits	Offered
First year, Fall semester			
ART 121 Design I 2D	Arts & Humanities Requirement	3	FA, SP, SU
CSC 105 Intro to Computers		3	FA, SP, SU
CSC 150 Computer Science I		3	FA, SP, SU
GAME 101 Game Design Core Experience		1	FA
MATH 123 Calculus I	Mathematics Requirement	4	FA, SP, SU
ENGL 101 Composition I	Written Communication Requirement	3	FA, SP, SU
	Total Credit Hours	**17**	
First year, Spring semester			
ART 282 2D Design on Computers I	P = ART 121 and CSC 105	3	FA, SP
CSC 250 Computer Science II	CSC 150	3	FA, SP, SU
GAME 111 Intro to Game Design	P = ART 121 and CSC 150	3	FA, SP
MATH 282 Math for Games		3	FA, SP
Social Science	PSYC 101 or SOC 285 recommended	**3**	FA, SP, SU
	Total Credit Hours	**15**	
Second year, Fall semester			
ARTD 186 3-D Animation, Modeling, and Concepts		3	FA
GAME 220 Game Programming Tools	P = CSC 250	3	FA
GAME 261 Worldbuilding		3	FA
PHYS 111/111L or PHYS 211/211L	Natural Science Requirement	4	FA
ENGL 201 Composition II	ENGL 101/Written Communication Req	3	FA, SP, SU
	Total Credit Hours	**16**	
Second year, Spring semester			
ARTD 255 3-D Character Animation, Rigging and Lighting	P = ARTD 186	3	SP
CSC 300 Data Structures	P = CSC 250	3	FA, SP, SU
GAME 222 Computer Game Design	P = GAME 111, CSC 250 and ARTD 282 or ARTD 285	3	SP
GAME 375 Level Design I	P = ARTD 186	3	SP
Natural Science		4	FA, SP, SU
	Total Credit Hours	**16**	
Third year, Fall semester			
CIS 332 Sys Analysis and Design or CSC 321 Cyber Law and Policy	P = CSC 150 P = 30 credits Completed	3	FA, SP, SU
CSC 334 Web Development	P = CSC 250	3	FA, SP, SU

Course	Prerequisites / Comments	Credits	Offered
GAME 333 Project and Process I	P = ARTD 282, ARTD 285, CSC 300 and GAME 222	3	FA
GAME 475 Level Design II	P = GAME 375	3	FA
Oral Communication	CMST 101 or CMST 215 or CMST 222	3	FA, SP, SU
	Total Credit Hours	**15**	
Third year, Spring semester			
ARTD 285 2D Design on Computers II	P = ART 121 and CSC 105	3	SP
Arts & Humanities	Must not be ART or ARTH; MUS 100 or THEA 201 recommended	3	FA, SP, SU
GAME 351 Business of Game Development	P = GAME 101 and GAME 111	3	SP
GAME 334 Project and Process II	P = GAME 333	3	SP
Elective		3	FA, SP, SU
	Total Credit Hours	**15**	
Fourth year, Fall semester			
GAME 444 Project Development	P = GAME 334	3	FA
Social Science	PSYC 101 or SOC 285 recommended	3	FA, SP, SU
Electives		6	FA, SP, SU
	Total Credit Hours	**12**	
Fourth year, Spring semester			
GAME 445 Project Development II	P = GAME 444	3	SP
Electives		11	FA, SP, SU
	Total Credit Hours	**14**	

P = Course Prerequisite(s)
Semester: FA = Fall; SP = Spring; SU = Summer

Table 6. BSCGD Plan of Study

Part 4: Program Enrollments and Student Placement

4.1 Program, College, and University Enrollment

Program enrollment is based on the number of students enrolled in at least one DSU class with an active program of BS Computer Game Design.

University and college enrollment is based on the number of students enrolled in at least one DSU class as of fall census. While the Computer Game Design program is shared between both The Beacom College of Computer and Cyber Sciences (The Beacom College) and the College of Arts & Sciences (A&S), the primary college assigned is Beacom. Therefore, in all areas except the degrees awarded section, the program headcount is not included under the A&S college total. If a student is enrolled in multiple programs, they may be counted under each college but are only counted once at the university level.

Table 7 shows enrollment data for the BSCGD program, The Beacom College, A&S, and DSU from Fall 2016 to Fall 2023.

	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Fall 2022	Fall 2023
Computer Game Design (BS)	98	102	99	98	93	96	97	104
College of Arts and Sciences	384	391	366	369	325	337	332	315
The Beacom College	1004	1080	1177	1251	1290	1239	1285	1323
University Enrollment	3190	3307	3382	3268	3186	3219	3241	3509

Table 7. BSCGD, The Beacom College, A&S, and University Enrollments

4.2 Student Diversity

Table 8 shows the student diversity based on gender and ethnicity.

	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Fall 2022	Fall 2023
Computer Game Design								
Gender								
Female	11	14	13	8	5	10	11	13
Male	87	88	86	90	88	86	86	91
Ethnicity								
White	82	83	83	77	75	81	81	87
Other Races/Unknown	16	19	16	21	18	15	16	17
College of Arts & Sciences								
Gender								
Female	189	181	176	168	134	139	126	130
Male	195	210	190	201	191	198	206	185
Ethnicity								
White	319	318	302	290	257	264	258	237
Other Races/Unknown	65	73	64	79	68	73	74	78
The Beacom College								
Gender								
Female	119	132	170	180	176	186	196	216
Male	885	948	1007	1071	1114	1053	1089	1107
Ethnicity								
White	808	884	968	999	1004	941	954	951
Other Races/Unknown	196	196	209	252	286	298	331	372
Dakota State University								
Gender								
Female	1355	1325	1340	1196	1139	1194	1156	1279
Male	1835	1982	2042	2072	2047	2025	2085	2230
Ethnicity								
White	2553	2674	2714	2592	2534	2541	2493	2619
Other Races/Unknown	637	633	668	676	652	678	748	890

Other Races/Unknown includes all students who are not classified as "white" based on ethnicity, including students who identify themselves as Hispanic/Latino and those classified as a U.S. nonresident.

Table 8. Student Diversity - Gender & Ethnicity

4.3 Degrees Awarded

Table 9 lists the number of degrees awarded for Computer Game Design, The Beacom College, the College of Arts & Sciences, and the university each academic year from AY16-17.

	AY17-18	AY18-19	AY19-20	AY20-21	AY21-22	AY22-23	AY23-24
Computer Game Design	13	8	18	11	14	8	10
College of Arts & Sciences	101	86	113	78	99	89	93

	AY17-18	AY18-19	AY19-20	AY20-21	AY21-22	AY22-23	AY23-24
The Beacom College	194	183	251	287	263	287	280
University	478	454	558	543	519	583	656

Degrees awarded at the college and university level is representative of all program completions at the associate, bachelors, masters, and doctoral level; for example, if a student received a bachelor's degree in both Computer Game Design and Computer Science, they would be counted twice at the college and university level. Certificates are not included.

Table 9. Number of BSCGD Degrees Awarded by Academic Year

4.4 Persistence Rates

The persistence rates for first-time, full-time, baccalaureate degree-seeking freshmen from Fall 2016 to Fall 2023 are shown in Table 10. The **% Returned in Spring** values represent the percentage of students who returned the semester immediately following the first fall semester in which the student was enrolled.

		Computer Game Design	College of Arts & Sciences	The Beacom College	University
Fall 2016	Number of Students	25	63	177	305
	% Returned in Spring	92%	78%	90%	86%
Fall 2017	Number of Students	27	70	179	355
	% Returned in Spring	96%	90%	91%	88%
Fall 2018	Number of Students	25	60	205	377
	% Returned in Spring	68%	87%	89%	86%
Fall 2019	Number of Students	27	82	214	399
	% Returned in Spring	96%	88%	94%	89%
Fall 2020	Number of Students	26	63	190	355
	% Returned in Spring	92%	79%	88%	83%
Fall 2021	Number of Students	30	68	192	345
	% Returned in Spring	93%	88%	94%	90%
Fall 2022	Number of Students	26	66	191	355
	% Returned in Spring	92%	95%	91%	90%
Fall 2023	Number of Students	27	62	215	384
	% Returned in Spring	74%	90%	91%	89%

Table 10. Persistence Rates for First-time, Full-time Students from Fall 2016 to Fall 2023

Table 11 shows the persistence rates for incoming degree-seeking transfer students from Fall 2016 to Fall 2023. The **Number of Students** in the year of the stated fall semester includes all students in the starting cohort of transfer students, including both part-time and full-time students. The **% Returned in Spring** values represent the percentage of students from the cohort who registered for at least one class from DSU in the subsequent spring semester.

		Computer Game Design	College of Arts & Sciences	The Beacom College	University
Fall 2016	Number of Students	6	30	140	272
	% Returned in Spring	83%	80%	83%	79%
Fall 2017	Number of Students	5	27	141	289
	% Returned in Spring	100%	78%	86%	82%
Fall 2018	Number of Students	6	27	131	251
	% Returned in Spring	67%	74%	77%	75%
Fall 2019	Number of Students	2	35	129	245
	% Returned in Spring	100%	84%	74%	78%
Fall 2020	Number of Students	3	20	11	207
	% Returned in Spring	100%	84%	74%	77%
Fall 2021	Number of Students	5	23	85	183
	% Returned in Spring	100%	87%	86%	84%
Fall 2022	Number of Students	7	23	117	210
	% Returned in Spring	86%	78%	78%	80%
Fall 2023	Number of Students	5	17	81	235
	% Returned in Spring	80%	88%	89%	89%

Table 11. Persistence Rates for Incoming Transfers from Fall 2016 to Fall 2023

4.5 Retention Rates

The retention rates for first-time, full-time, baccalaureate degree-seeking freshmen from Fall 2016 to Fall 2022 are shown in Table 12. The **% Returned Next Fall** values represent the percentage of students who returned the following fall semester.

		Computer Game Design	College of Arts & Sciences	The Beacom College	University
Fall 2016	Number of Students	25	63	177	305
	% Returned Next Fall	84%	68%	77%	72%
Fall 2017	Number of Students	27	70	178	354
	% Returned Next Fall	70%	64%	76%	67%
Fall 2018	Number of Students	25	60	204*	376*
	% Returned Next Fall	56%	63%	66%	66%
Fall 2019	Number of Students	27	82	214	399
	% Returned Next Fall	67%	65%	81%	71%
Fall 2020	Number of Students	26	63	190	355
	% Returned Next Fall	69%	75%	78%	72%
Fall 2021	Number of Students	30	68	194	345
	% Returned Next Fall	83%	71%	835	75%
Fall 2022	Number of Students	26	66	190	354
	% Returned Next Fall	77%	83%	77%	75%

** One student passed away in the Fall 2018 Cohort. The student is counted in the persistence table but excluded from the retention table.*

Table 12. Retention Rates for First-time, Full-time Students from Fall 2016 to Fall 2022

Table 13 shows the retention rates for incoming degree-seeking transfer students from Fall 2016 to Fall 2022. The **Number of Students** values include all students in the starting cohort of transfer students, including both part-time and full-time students. The **% Returned Next Fall** values represent the percentage of students from the cohort who registered for at least one class from DSU in the fall semester of the following year.

		Computer Game Design	College of Arts & Sciences	The Beacom College	University
Fall 2016	Number of Students	6	30	140	272
	% Returned Next Fall	83%	67%	68%	64%
Fall 2017	Number of Students	5	27	141	289
	% Returned Next Fall	60%	52%	67%	62%
Fall 2018	Number of Students	6	27	131	251
	% Returned Next Fall	50%	52%	57%	56%
Fall 2019	Number of Students	2	35	129	245
	% Returned Next Fall	100%	51%	63%	62%
Fall 2020	Number of Students	3	20	111	207
	% Returned Next Fall	67%	40%	52%	57%
Fall 2021	Number of Students	5	23	84	183
	% Returned Next Fall	40%	61%	59%	60%
Fall 2022	Number of Students	7	23	117	210
	% Returned Next Fall	86%	61%	65%	62%

Table 13. Retention Rates for Incoming Transfers from Fall 2016 to Fall 2022

4.6 Graduation Rates

Table 14 represents the graduation rates for the BSCGD program, the College of Arts & Sciences, The Beacom College, and the University. Additionally, there is no data for The Beacom College until it came into existence in Fall 2015. Prior to that, the BSCGD program was a part of the College of Business and Information Systems (BIS).

Cohort		Computer Game Design	College of Arts & Sciences	The Beacom College	University
Fall 2011	Number of Students in Cohort	25	74		275
	Graduated within 5 years	36%	30%		32%
	Graduated within 6 years	36%	35%		35%
Fall 2012	Number of Students in Cohort	30	69		283
	Graduated within 5 years	17%	38%		37%
	Graduated within 6 years	40%	45%		43%
Fall 2013	Number of Students in Cohort	36	63		276
	Graduated within 5 years	33%	33%		37%
	Graduated within 6 years	36%	33%		38%
Fall 2014	Number of Students in Cohort	29	52		263
	Graduated within 5 years	31%	35%		43%
	Graduated within 6 years	38%	40%		47%
Fall 2015	Number of Students in Cohort	32	66	153	320
	Graduated within 5 years	34%	41%	41%	42%
	Graduated within 6 years	41%	44%	45%	45%
Fall 2016	Number of Students in Cohort	25	66	177	305
	Graduated within 5 years	40%	39%	46%	42%
	Graduated within 6 years	44%	41%	52%	46%
Fall 2017	Number of Students in Cohort	27	70	179	354
	Graduated within 5 years	37%	44%	57%	47%
	Graduated within 6 years	41%	44%	58%	48%
Fall 2018	Number of Students in Cohort	25	71	204	376
	Graduated within 5 years	44%	32%	54%	46%
	Graduated within 6 years	44%	33%	56%	48%

Table 14. Graduation Rates for First-time, Full-time, Baccalaureate Freshmen

4.7 Student Placement

Career Services was able to contact 5 of 6 Computer Game Design graduates from 2023. Of the respondents, 4 were employed and 1 was continuing his or her education.

The following is a list of companies and positions filled by 2023 graduates of the BSCGD program:

- Bank West Game Designer
- Fast Enterprises Game Developer
- JDS Industries Universal Support

- U.S. Bank Web Developer

Part 5: Faculty Credentials

5.1 Faculty Qualifications

Full-time faculty educational qualifications are summarized in Table 15, and resumes are provided in Appendix A.

Faculty Name	Highest Degree Earned - Field and Year	Academic Rank	Type of Academic Appointment
Erik Pederson	MS Engineering, University of Wisconsin Milwaukee - 1998	Assistant Professor	Tenure Track
Peter Britton	MFA Computer Animation, Miami International University of Art and Design - 2011	Assistant Professor	Tenure Track

Table 15. Full-time Faculty Degrees, Ranks, and Types of Academic Appointments

5.2 Faculty Workload

The current faculty workload document of Dakota State University was effective May 1, 2021. While the standard workload is 30 workload units per academic year, reasonable time is allocated to faculty members who hold professorial rank and who actively engage in research, scholarship, or creative artistic activity or who actively pursue professional service activities related to their disciplines. Ordinarily, reasonable allocated time is equivalent of six workload units of instruction, or its equivalent per academic year and, if assigned, the faculty member must be actively engaged in productive scholarship. The institution may adjust this workload requirement to ensure faculty members have adequate time for research and scholarship or service or as deemed necessary by the institution.

The typical full time teaching load for tenured or tenure track faculty is 24 semester credit hours for each academic year (fall and spring). Faculty whose teaching load exceeds that requirement (and who are actively engaged in research, scholarship, or creative artistic activity and who actively pursue professional service activities related to their disciplines) may qualify for overload pay when the teaching load exceeds the 24-credit requirement in any given academic year. Faculty holding professorial rank but located off campus are required to provide service to the university, service to the discipline, and to actively engage in research, scholarship, or creative artistic activity.

Academic advising is recognized as part of a faculty member's teaching workload and generally will not exceed an assignment as primary adviser of more than 50 students for faculty members with professorial rank and more than 30 students for faculty members with lecturer rank. An unusually heavy advising load can be offset by a reduction in the faculty member's committee or other college assignments and/or a reduction in teaching load for faculty members holding lecturer rank.

5.3 Faculty Size

The Beacom College currently has 40 faculty members who teach undergraduate courses. Sections of classes are typically capped at 25 students. To maintain small class sizes, The Beacom College also hires qualified adjunct faculty members teaching computer science courses.

The College of Arts and Sciences has 37 full-time faculty who teach courses at DSU, mainly courses that are a part of General Education requirements.

5.3.1 Student Interaction with Computer Game Design Faculty

The faculty in the BSCGD program interact with students through advising roles in registered student clubs and organizations, including:

- Computer Club
- DSU Esports
- Gaming Club
- Game Design Club

The department also hosts an annual Nanocon gaming convention that usually coincides with an Integrated Design in Games (IDiG) convention. Faculty and students also participate in the annual Global Game Jam[12]

5.3.2 Advising for the Computer Game Design Program

Students are advised by professional advisors for the first two academic years through Academic Support Services. Students are transitioned to faculty advisors in The Beacom College if specific benchmarks are met, including completing a minimum 45 credits, minimum 2.4 GPA, and being in good academic standing. Faculty members with professional rank will have a maximum student load of 50 advisees, while those with lecturer rank will be allotted no more than 30 advisees.

5.4 Professional Development

5.4.1 The Center for Teaching and Learning

In July 2018 Dakota State University established its Center for Teaching and Learning (CTL) to serve as the university hub of teaching support and innovation. Prior to the establishment of the CTL, a single university committee was charged with identifying instructional development topics and implementing faculty workshops/events. That committee is now an advisory group to the CTL, which is directed by a senior faculty (1/2 time, by application) and includes an instructional design and technology specialist (full time) and clerical support. The CTL is also assisted by four faculty associates (one from each of the four colleges at DSU) who are among

[12] Global Game Jam

the university's most accomplished instructors with strengths in course development, learner engagement, and assessment. The CTL faculty associates provide mentoring and consultation with individual faculty when time permits. Additionally, the CTL identifies, coordinates, and provides professional and academic development activities for faculty and staff. The CTL works with academic administrators and faculty to identify instructional priorities and develop programming to address those priorities.

The CTL not only supports teaching and learning traditional classroom environments but also focuses on providing pedagogical and technology development in online environments. This support has included the creation of instructional aids, materials, and media that are accessible online to assist faculty in improving teaching and student interaction skills. The CTL has also initiated peer review of all online courses using the state mandated Quality Assurance (rubric). For graduate students, the CTL provides expertise to support the goals of the university, including assisting in the production of quality thesis, dissertations, presentation, grant writing, and understanding of compliance issues. For undergraduates, engagement objectives include topics on mentored research, integrity (plagiarism, and copyright), and student service/government.

5.4.2 Funding for Faculty Research and Travel

Examples of funds available for faculty research and travel include:

- DSU supports a Faculty Research Initiative (FRI) intended to encourage and facilitate faculty research and creative activity. The competitive grants offer up to $3,000 for individual faculty or up to $5,000 for collaborative teams.
- The Supporting Talent for Research Trajectories (START) internal funding program was launched in 2018. This seed fund offers faculty support for preliminary work on research that will result in proposals for externally funded research grants.
- DSU also routinely sets aside significant funding for instructional and professional travel and for faculty training. Individual faculty can qualify for up to $1,200 for travel and training at qualifying events.

5.4.3 Faculty Sabbaticals

In 2023, DSU issued a new policy on Faculty Sabbaticals[13]. A faculty member may apply for sabbatical leave after six or more consecutive years of full-time teaching at DSU. With approval from the Dean, faculty can apply for a one semester research sabbatical. The university Promotion and Tenure Committee reviews all applications for sabbatical leave.

[13] DSU Policy 1.19 Faculty Sabbaticals

5.5 Authority and Responsibility of Faculty

Faculty members can propose a new course and course modifications by submitting either a new course request or a course modification request. The proposal is evaluated and voted on by The Beacom College Undergraduate Curriculum Committee which includes a representative from the Beacom Access Committee. The Undergraduate Curriculum Committee presents the proposal to the entire faculty in the college for approval or disapproval. Upon approval of the faculty, modifications are sent through the Dean, the Provost, and the South Dakota Board of Regents for approval.

The Program Educational Objectives (PEOs) are reviewed each year by the faculty during the orientation week. The Assessment Committee collects the feedback, makes modifications, and submits the modifications to the program constituencies for approval. Additionally, a survey is conducted for each course at the end of each term through Campus Labs (https://sdbor.campuslabs.com/). The evaluation results are shared with each faculty within a week after the survey is closed. Course evaluation results are included as part of each faculty member's annual evaluation exhibit.

Part 6: Academic and Financial Support

6.1 College Support

6.1.1 Beacom College of Computer and Cyber Sciences

The Beacom College of Computer and Cyber Sciences office is the central point of support for all undergraduate and graduate students with majors within this college. The central office is located in the Beacom Institute of Technology Building. The office is also provided with several work study positions that are tasked with helping faculty whenever help is requested. Table 16 includes the administration and staff who work in The Beacom College.

Name	Title
Dr. Mary Bell	Dean
Dr. Tom Halverson	Associate Dean of Beacom Undergraduate Programs
Dr. Yong Wang	Associate Dean of Beacom Graduate Programs
Erin Kahler	Administrative Assistant II
Kathy Engbrecht	Retention Specialist
Eric Holm	Systems Architect (Power Cyber Lab)

Table 16. The Beacom College Administration and Support Staff

6.1.2 College of Arts and Sciences

The College of Arts and Sciences has offices that provide support in both Beadle Hall and the Science Center to help better meet the needs of faculty, staff, and students. Table 17 lists the administration and staff for the College of Arts and Sciences.

Name	Title
Dr. Stacey Berry	Dean of the College of Arts and Sciences
Susan Langner	Administrative Assistant II
Pam Lewis	Administrative Assistant I

Table 17. The College of Arts and Sciences Administration and Support Staff

6.2 Graduate Programs

The Office of Graduate Studies was established to promote and support graduate education at DSU. The Dean of Graduate Studies collaborates with and supports the functions and responsibilities of the Graduate Council and the graduate program committees within each college and serves as the advocate for graduate education and graduate student support at DSU. The Office of Graduate Studies administration and staff are included in Table 18 below. The day-to-day operations and services provided by the Office of Graduate Studies are client centered. The office offers guidance and help to students from the first inquiry to graduation. This includes providing accurate and timely program information and maintaining the graduate programs website with current information for degree seeking students (https://dsu.edu/admissions/graduate/). The office also facilitates the recruitment of prospective

students, the application process, assisting in setting up interactive audio/video for remote sites in South Dakota and online for distance students. Other services provided by the Office of Graduate Studies include:

- assisting with course scheduling and course rotations
- making students aware of changes in schedules, rotations, and graduate policies
- assisting with registration
- supporting the assistantship committees
- monitoring student progress toward graduation
- serving as a liaison among other support staff, faculty, and administrators
- processing Fast Track (4+1) Program[14] applications

Name	Title
Dr. Mark Hawkes	Dean
Abby Chowing	Graduate Enrollment Counselor
Brianna Mae Feldhaus	Graduate Enrollment Counselor
Eve Skajewski	Graduate Enrollment Counselor
Samantha Dirkson	Administrative Assistant I

Table 18. The Office of Graduate Studies Administration and Support Staff

On July 1, 2018, the new role of Vice President of Research and Economic Development was developed at DSU. This position was created to address unprecedented growth in student numbers, employee numbers, academic programs, research activity, to articulate research as a strategic priority. This was further articulated through the subsequent development of DSU's ADVANCE Strategic Plan, in which Research/Economic Development feature prominently in one of the pillars.

The university's awarded grant funding has trended up along with the graduate population. With DSU's CyberHealth Strategic Alliance with Sanford Heath, the $100 million public-private partnership to expand DSU's Applied Research Lab, the related new non-profit DSU Applied Research Corporation (DARC), and the continuing growth of DSU's faculty and student population, we anticipate continued growth of the University Research enterprise and its research-driven economic development efforts.

The funded proposals increased from $2,396,866 in 2018 to $9,142,619 in 2023. Notably, in 2023, DSU had over $5 million in Higher Education Research and Development (HERD) research expenditures as defined by the National Science Foundation (NSF). This is an important threshold since DSU has been awarding over 20 doctoral research degrees per year. Both metrics are being met to have DSU reclassified as an *R2: High Research Spending and Doctorate*

[14] Fast Track (4+1) Programs

Production university using the Carnegie Classification of Institutions of Higher Education®. Carnegie Classifications are expected to be released in early 2025.[15]

Table 19 includes the administration and staff in the Research and Economic Development Office.

Name	Title
Dr. Ashley Podhradsky	Vice President for Research and Economic Development
Dr. Peter Hoesing	Associate Vice President for Research & Economic Development
Arica Kulm	Director of Digital Forensics Services
Aaron Baker	Penetration Tester
Eli Ehresmann	Digital Forensics Analyst
Lance Jahnig	HIE Interface Analyst
Lisa Fox	HealthLink Program Manager
John Shmulsky	Informatics Surveillance Lead
Teresa Maier	Sponsored Program Analyst
Beth Delzer	Administrative Assistant II

Table 19. Research and Economic Development Administration and Support Staff

6.3 Library Resources and Services

Since Dakota State University received its current focused mission in the 1980s, the Karl E. Mundt Library's mission has been to expand its collection of materials on computers, technology, and information systems. To that end, the library has subscribed to an ever-widening number of databases and eBooks that support this emphasis. The physical and electronic collections continue to be built through faculty recommendations and requests, as well as from librarian selection based upon their knowledge of the curriculum and its needs. The journal collection is also based on faculty requests and is fine-tuned by means of an annual analysis of journal use. This analysis helps the library focus its expenditures (and finite budget) on those journals that are regularly needed and used by the institution's students. The collections have been enriched with digital information. The library subscribes to numerous online databases including the Association for Computing Machinery (ACM) Digital Library, ProQuest Research Library, ABI-Inform, IEEE, Lexis Nexis and over 100 others. Most of the material indexed in these databases includes direct access to the full text of the articles indexed. For those articles not available in full text, the library provides speedy interlibrary loan service at no extra cost to all DSU students, faculty, and staff.

The library holds an extensive collection of electronic books on computer security and information assurance, which are discoverable via the library catalog. In addition, the library subscribes to Safari Tech Books Online, which provides access to 150 titles that provide hands-on training in many areas of technology. The library also provides access to LyndaCampus.com, which provides digital tutorials in almost every area of technology, marketing, education, and career planning. The Karl E. Mundt Library is also a member of several library consortiums and

[15] Carnegie Classification - 2025 Research Designations FAQs

maintains borrowing and lending agreements with academic libraries across the country and around the world. As such, the library can attain materials in digital and/or physical formats for any scholarly need. The professional library administration and staff are listed in Table 20 below.

Name	Title
Dr. Mary Francis	Director of the Library
Abbie Steuhm	Reference and Scholarship Librarian
Ellen Hoff	Librarian
Taylor Cline	Library Associate

Table 20. Karl E. Mundt Library Administration and Support Staff

6.4 Online@DSU Support Services

The Office of Online Education is responsible for program planning, marketing, program implementation and overall management of courses and programs offered by alternative delivery at Dakota State University. Working in partnership with the colleges and the institution's academic support areas, the Office of Online Education works to design and develop active and collaborative degree programs at a distance.

The Office of Online Education is staffed with the Director of Online Education and the State Authorization Coordinator shown in Table 21 below. This team serves the needs of students who are enrolled in the online and videoconferencing courses at DSU. The office is the mainstay of distance services to students, working with the administrative offices of DSU to provide these services. The staff also serves the website needs of faculty, staff, and students at DSU. The office staff assists faculty in the design and implementation of courses delivered by various forms of technology.

Name	Title
Sarah Rasmussen	Director of Online Education
Annette Miller	State Authorization Coordinator

Table 21. Online@DSU Administration and Support Staff

6.5 Information Technology Services

DSU has a comprehensive technology infrastructure supporting universal (on and off campus) access to computing resources. The Information Technology Services administration and staff listed in Table 22 below provide technology support to faculty, staff, and students.

Name	Title
Shawn Jaacks	Chief Information Officer
Dr. Brent Van Aartsen	Chief Technology Officer
Stephanie Baatz	Director of Support Services
Bryon Olson	Director of Technical Operations
Pat Huntimer	Assistant Chief Information Officer, Director of Business Intelligence
Tyler Steele	System Administration Manager

Name	Title
Brett McKeown	System Administration Manager
Marie Millage	IT Procurement & Asset Management Administrator
Kim Wermers	Card Services Administrator
Scott Allbee	Systems Integration Engineer
Coby Cochran	Web Applications Developer
AJ DeGroot	Cybersecurity Analyst
Tess Eflin	Support Services Technician
Eric Holm	Systems Architect
Britney Jencks	Associate Integrations and Web Developer
Joelle Johnson	Senior Web Applications Analyst
Drew Jones	System Engineer
Kip Kinnunen	Network Architect
Braden Madison	Cybersecurity Analyst
Steve Millage	Systems Engineer
Nolan Moser	Multimedia Support Service Analyst
Amy Olson	Software Engineer
David Turner	IT Developer

Table 22. Information Technology Services Administration and Staff

6.6 Administrative Support

Current administrative staff will provide the academic support services to deliver academic programs at DSU. The administrative support personnel who are particularly critical to the delivery of the academic programs are included in Table 23 below.

Name	Title
Corey Braskamp	Director of Facilities Management
Laura Cross	Registrar
Amy Crissinger	Vice President for Student Affairs and Enrollment Management
Amy Dockendorf	Controller
Denise Grayson	Director of Financial Aid
Sara Hare	Director of Budget & Grants Administration
Jeanette McGreevy	Director of Institutional Effectiveness, Assessment, and Policy
Sierra Heppler	Director of Institutional Research
Deb Roach	Vice President for Human Resources
Kelly Greene	Director of Career and Professional Development
Sarah Olson	Course Materials Specialist
Donna Fawbush	Director of the Trojan Zone and University Events
Nicole Claussen	Director of International Programs
Dr. David Kenley	IRB Chair
Dr. Andrew Sathoff	Undergraduate Research Coordinator

Table 23. Administrative Support

6.7 Financial Support for Students

Financial aid opportunities are expected to come from institutional and private sources. Financial aid policies and procedures for application, award, and distribution have already been developed to support academic programs at DSU. DSU has also certified alternative loan eligibility for enrolled students (based on their educational costs) to regional and national lenders. Table 24 lists the administrator and support staff in DSU's Financial Aid Office.

Name	Title
Denise Grayson	Director of Financial Aid
Melinda Fedeler	Assistant Director of Financial Aid
Jill Corbin	Scholarship Coordinator
Laura Reed	Financial Aid and Scholarship Advisor
Amy Townsend	Administrative Assistant I

Table 24. Financial Aid Administrator and Support Staff

The DSU Financial Aid Office, as a member of the National Association of Student Financial Aid Administrators (NASFAA), complies with the NASFAA Ethical Principles and Code of Conduct for Institutional Financial Aid Professionals.

Part 7: Facilities and Equipment

With DSUs 1:1 portable computing environment requiring students to have a Windows or Mac laptop and its expansive secure wireless network, the need for dedicated computer labs is not as prevalent as it has been in the past. Classroom space on campus was significantly increased with the Fall 2017 opening of the Beacom College of Computer and Cyber Sciences, the first LEED version 4 building in South Dakota, and the renovations of East Hall in 2019 and 2021. Beadle Hall, one of the academic buildings used by the College of Arts & Sciences, is currently being renovated and is on track to reopen in Fall 2025. Dedicated research facilities are available in the Madison Cyber Labs (MadLabs®). Students at DSU are given access to industry standard software and a virtual Power Cyber® Lab to meet all their computing needs.

7.1 Power Cyber® Lab

DSU's Power Cyber® Lab (PCL) is a cloud-based solution to the problems of technology education. The PCL Lab was designed and implemented in 2009, and its use has continually grown ever since with the additions of new classes plus growing enrollment. The PCL Lab allows an instructor to focus their time on creating and testing their lab. Once the lab is finalized, the lab administrator can copy unique instances of the lab to all students within the class. This process takes approximately 20 minutes total, depending on the size of the class. The lab can run any platform (Windows, MacOS, FreeBSD, or Linux), in addition to popular firewall and router distributions. These labs are all safely contained so that students are safe when practicing any cybersecurity concepts. Due to the self-service nature of lab implementation, it can be used for projects far beyond the classroom. The PCL Lab hosts research projects for undergraduate and graduate students, in addition to housing research projects for faculty members. Due to the safe/secure nature of the lab, it also houses DSU's High Performance Computing/Hadoop environment. The lab users vary from semester to semester, but largely include students from programs including Artificial Intelligence, Information Systems, Cyber Operations, Computer Science, Network Security Administration, etc.

7.2 MadLabs®

On Jan. 31, 2018, Governor Dennis Daugaard signed House Bill 1057 into legislation which permitted the demolition of DSU's Lowry Hall and construction of the Madison Cyber Labs, or MadLabs®. The Madison Cyber Labs build on DSU's expanding capabilities and strengths to establish a hub of cybersecurity and cyber operations expertise, research, and economic development in South Dakota. As of December 2023, DSU faculty has established 16 MadLabs. Construction of the $18 million, 40,000 square foot MadLabs building, located on the southwestern edge of campus, was completed in Fall 2019. It is the first research facility of its kind in the Upper Great Plains region.

There are five components to MadLabs® game-changing plan to reshape the cyber field in South Dakota, including:

1) **Resources**: a winning combination of laboratory research space, state-of-the-art hardware and software, faculty expertise, and growing institutional relationships with a wide variety of public and private agencies
2) **People**: undergraduate and graduate students, faculty, researchers, interns, and other collaborators
3) **Programs**: nationally recognized cyber degrees from the associate to doctoral level, along with other professional development opportunities
4) **Research areas and institutes**: focus areas in defined interdisciplinary and multidisciplinary regions, which draw from every college on campus
5) **REED Connection**: DSU is connected to the South Dakota Research, Education, and Economic Development Network (REED) via a 100 Gbps connection. Providing the campus with connectivity to Internet2, the Great Plains Network, and other research networks.

MadLabs® drives innovation and ideas from DSU into the South Dakota economy, the Great Plains, and the nation. At the same time, it draws new talent to the state and the region. The facility and its programs attract elite scholars, researchers, professionals, and partnerships with government, businesses, nonprofits, and other higher education institutions.

Researchers within MadLabs® primarily focus on projects exploring and advancing technology application, information and quality assurance, business adverse event planning, economic growth, and policy improvement across multiple disciplines and fields. MadLabs® focus areas include cybersecurity, digital forensics, cyber defense, Artificial Intelligence (AI) and machine learning, reverse engineering, and malicious digital artifacts. MadLabs® also fosters partnerships with the public and private sectors to cultivate ideas and transform their research to make a difference in the world.

MadLabs® currently includes 16 labs[16]:

- AdapT Lab
- AI Lab
- CAHIT
- CBAR Lab
- CLASSICS Institute
- Cyber Education and Professional Development Lab
- CybHER® Security Institute
- Deep Red Lab
- DigForCE Lab
- IT Living Lab
- MADRID Lab

[16] Madison Cyber Labs - Dakota State University

- PATRIOT Lab
- Pri Lab
- Smart Home Lab
- Success Lab
- VERONA Lab

Figure 1. Madison Cyber Labs

7.3 MadLabs Research Environment and Network

The computing resources are available through the MadLabs Research Environment and Network (MADREN) at DSU. MADREN is an extensive technology infrastructure dedicated to cybersecurity research. The MADREN includes 10 Lenovo SR630s servers, each with dual Intel Xeon Gold 5118 Processors, for a total of 240 cores @ 2.3 GHz. This is supported by 2.56TB of TruDDR4 @ 2666MHz RAM available and a 126TB HPE Nimble Storage Adaptive Flash Array. These resources are accessible through virtualization via VMware Director. The MADREN also contains a large GPU cluster accessible through VMware View. It includes 5 Lenovo SR670s servers, each with dual Intel Xeon Gold 6242 Processors, for a total of 160 Cores @ 2.8 GHz each, and 1.92TB of TruDDR4 Performance+ RAM @ 2933MHz. The cluster has 40 NVIDIA Tesla T4 16GB cards, with 12,800 Turing Tensor Cores and 102,400 CUDA Cores. The total GPU capacity represents 324 Teraflops, 2.6 Petaflops, 5,200 TOPS (INT8), or 10,400 TOPS (INT4). All MADREN resources have access to Internet2, with a max data transfer of 100 Gbps.

Part 8: Program Learning Outcomes and Assessments

8.1 Program Learning Outcomes (PLOs)

Upon completion of the BS degree in Computer Game Design, students will:

- Contribute to interactive, multimedia software design and development projects (e.g., digital games, mobile apps, websites, and simulations).
- Work productively on interdisciplinary teams (e.g., appropriate communication, teamwork, process skills, and collaboration tools).
- Apply agile processes to game development or similar software products (e.g., game engines, programming languages, 3-D modeling, 2-D graphics, and version control systems).
- Develop flexible skillsets to apply the principles they have learned to use new or updated tools and processes for similar purposes.

8.2 Assessments

Student performance in interactive software development is evaluated in three phases:

- GAME-111 Introduction to Game Design: This course covers game design theory and hands-on level design using a pre-built game. Success here prepares students for advanced courses.
- GAME-222 Computer Game Analysis and Development: This gateway course focuses on developing prototypes that combine programming, art, and design. It prepares students for year-long development cycles.
- GAME-333/334 and GAME-444/445: These core production courses involve team-based development. Students are evaluated on their contributions, teamwork, and public interactions. Seniors mentor juniors in these courses.

Agile processes are taught and implemented throughout the student's time at Dakota State University. Specifically, agile methodologies are covered in the Business of Games course, where students are exposed to many components and how they are applied to the game industry. Students are evaluated using traditional methodologies, with individual assignments and projects being assessed for understanding.

- In addition to this, students are exposed firsthand to agile implementation in all the project-based courses. These include GAME 333, 334, 444, and 445. In these classes, the students work together as teams to design, produce, and test their work, with the end goal of being playable product demos at the conclusion of the courses. Throughout the progression of the cycle, the students are assigned different tasks, which frequently change throughout the development process. Specifications, component due dates, team deliverables, and hopeful outcomes evolve throughout the production cycle. Along with frequent testing, this is a direct application of agile processes.

- Students and teams are discussed as the projects move forward, with the faculty evaluating the process. Modifications to how the teams are set up, and how the courses are implemented are evaluated both during the semester and at the end of the cycles. This allows for the faculty to evolve the methods used in sequential course offerings.
- The program equips students with a diverse skill set, including art, programming, design, and narrative development. This comprehensive approach ensures that students gain a holistic understanding of the game development process, regardless of their specific area of specialization. Covering these core disciplines, the program fosters creativity and problem-solving abilities, enabling students to effectively address and overcome various challenges encountered during the development process.

APPENDIX A: Faculty Resumes

Peter Britton

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Sioux Falls, SD

Employment

2020 - Present	**Assistant Professor Computer Game Design**, Art and Sciences, Dakota State University, Madison, SD.
2015 - 2020	**Assistant Professor Digital Animation and Game Design**, Art, Missouri Western State University, Saint Joseph, MO.
2013 – 2015	**Adjunct Professor Digital Animation**, Digital Media Arts College/ Lynn University, Boca Raton, FL.
2012 – 2015	**Adjunct Professor Game Design and Animation**, Art Institute of Fort Lauderdale, Fort Lauderdale, FL.
2011 – 2014	**Environment Artist | C# Programmer**, Evolution Ventures, Miami Beach.
2009 – 2010	**Environment Artist**, Zero Fractal, Miami, FL.

Degrees

MFA Computer Animation, Miami International University of Art and Design, 2011
BFA Computer Animation, Miami International University of Art and Design, 2009
AAS Computer Science, Brookdale Community College, 2005

Exhibitions

Mark 100 Regional, (2019).
Irene Rosenzweig Biennial Juried Exhibition, (2019).
5th Annual Figures & Faces, (2019).
Average Art 39, (2019).
27th Emerald Coast National Juried Fine Arts Exhibition, August 17, 2019 - September 20, 2019.
Perspective: Biennial Missouri Western Faculty Exhibition, St Joseph Albrecht Kemper, September 14, 2018 - November 4, 2018.
26th Emerald Coast National Juried Fine Arts Exhibition, May 19, 2018 - June 22, 2018.
Nine, September 16, 2016 - November 6, 2016.

Publications

Articles

- Objective Clarity, *Acta Ludologica*, 2(1) 2019.

Presentations

Conferences

- *"Procedural Modeling."* Presentation, Computer Simulation and Game Conference, University of Tulsa April 12, 2019.

Service

Committee Service

- *UNV101 Committee*. UNV101 Committee is charged with the responsibility of creating a new UNV101 course that is 1 credit hour versus 3. The long-term intention is for this course to be part of the freshmen's track for aiding with retention and degree completion. March 3, 2017 – March 2018.
- *Scholarship Committee*. Evaluating submissions and selecting qualifying students for several of the school's available scholarships. January 29, 2017 - 2020.
- *Undergraduate Curriculum Committee Chair*. The UGCC Chair will: • act as the primary resource for all departments in regards to the curriculum process, timing and completion of forms including navigating the UGCC Curriculum Proposal System • coordinate and lead the curriculum training for departments and UGCC • organize the subcommittees, assign curriculum proposals to be reviewed and establish the timeline for subcommittee presentation to the UGCC committee • determine if a department should be considered as an affected department beyond the parameters set above • determine what is considered a substantive change to a proposal that may affect another department • assign a subcommittee to review all administrative changes for presentation to the UGCC • prepare the final report of curriculum changes for presentation at Faculty Senate and GAC. The report will include rationale and justification for the committee's action. A digital copy of all of the proposals will be housed in the Office of Academic Affairs. March 19, 2018 - December 14, 2018.

Institutional Service

- *Art Day*. One-hour training introducing high school students to game design. October 11, 2018 - Present.
- *Showcase Day*. January 22, 2018 - 2020.
- *Animation Club Advisor*. January 22, 2018 - December 7, 2018.

Community Service

- *Game Development*. Lecture on Game Development at De Soto High School. February 12, 2018.
- *Entrepreneurship Week.* Participants are introduced to the application of Photoshop for their business. The session is one hour and 15 minutes. With over 50 attendants. March 25, 2019 - March 29, 2019.
- *Entrepreneurship Week*. Entrepreneurship Week is an annual series of workshops and events, hosted by the Craig School of Business Center for Entrepreneurship for business professionals, aspiring entrepreneurs, and college students to network and learn more about small business. March 19, 2018 - March 23, 2018.

Research | Scholarship | Creative Activity

Game Development

- Active development on an isometric adventure game Khaos, with a team of five individuals. The game is being developed in Unity game engine. My active role is director, environment artist and lead gameplay programmer. Khaos is being developed for Microsoft Windows Personal Computers and Xbox game consoles. Development is progressing as planned.
- Squish and the Corrupted Crystal. Sid-scrolling platform for Xbox and PC. (2017)

VR Development

- Participated in Unity's Create with VR for Educators 4-week course. This course was an introduction to implementation of VR technologies in the classroom.

Video Game Archive

- Started the establishment of a video game archive that preserves legacy games and increases access to games on systems that are no longer accessible. Collaborated with Karl Mundt library and University of Michigan Library for the steps needed for this long-term project.

Game Design Pattern

- Active development of the GameAction system that is being used for easier implementation of game mechanics in games. This system is being applied for the Khaos game and being taught to students for faster and more efficient game development using Unity game engine.

Erik J. Pederson

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epederson9@gmail.com

Employment

2020 – Present	**Assistant Professor of Computer Game Design**, Dakota State University
2015 – 2021	**Executive Producer**, Thawed Codebase Game Development
2008 – 2019	**Department Chair; Game Development/Graphic Design**, Herzing University, Madison, Wisconsin
2006 – Present	**Founder and CEO**, Green Bay Digital Engineering, Sun Prairie, WI
2006 – 2008	**Co-Founder/Producer**, Frozen Codebase, Green Bay, Wisconsin
2002 – 2007	**Program Chair; Design and Drafting Programs**, ITT Technical Institute, Green Bay, Wisconsin

Degrees

MS	Engineering, University of Wisconsin Milwaukee, 1998
BS	Industrial Technology, University of Wisconsin, 1991

Memberships

2006 – Present	American Design and Drafting Association (ADDA)
2005 – 2020	International Game Developers Association (IGDA)
2002	Society of Manufacturing Engineers (SME)

Publications

"Bridge Building – Making the People that Make the Games", Gamasutra Career Guide – Feature Article, April 2007
Before They Were Stars – Game Industry Design Challenge Selection, Gamasutra Career Guide, September 2015
Winter Wonderland - Game Industry Design Challenge Selection, Gamasutra Career Guide, December 2014

Presentations

MDEV Conference Speaker – Madison, WI, 2022
How to Get Out of the Game Industry (p.s. You Don't) - Midwest Game Developer's Summit, July 2014
Making the People that Make the Games – Be Real, Midwest Game Developer's Summit, July 2013

Seminar Attendance

Following is a short list of seminars and workshops external to Dakota State University that I have attended over the past few years. All of the seminars have been informative, and indirectly and directly impact the content and direction that the Game Design Program holds.

- Marketing Without a Publisher, Gamasutra Seminar – Nov 30, 2022
- Video Game Publisher Strategy Seminar, Games Publisher Teams – Jan 27, 2023

- Game Metaverse Seminar, Gamasutra Seminar – March 2023
- weB3: Protecting Revenue and Your Players, web3 Seminar Set – April 4, 2023
- Unity to Unreal Call in Seminar, Gamasutra Seminar – April 2023
- Blockchain Seminar, Software Product – Sept 14, 2023
- Achieving an Education for All: Tips from Educators - Mar 9, 2023

Service

Content Creator – ESPORTS (Dakota State University)

- Develop and write content for new ESPORTS courses. These courses are part of the School of Business EPORTS Management Curriculum.

Producer of Discover Days – Game Development Events

- These are conducted throughout the semester(s). These events are aimed at discussing the program in general and answering questions from staff, students, potential students, parents, admissions, and others about the school and the game design program.

Producer for the annual All Hollow's Game Fair

- Conduct presentations, interview potential students and their parents, answer questions, prepare the student project teams for the testing components, select the student panel participants, and other duties to make the event successful.

Producer/Director for Dakota State's Global Game Jams

- Work with Global Game Jam staff, administration, students, and program constituents to host the Global Game Jam at Beacom College. The event has grown from 24 participants in 2020 to the current 75 attendees.
- https://globalgamejam.org/jam-sites/2024/dsu-2024

Producer/Instructor Career Pathways Summer Camp – Dakota State University Summer 2023

- Create and teach content for the summer camp. This is a one-day career exploration event for middle school kids where they get a slight taste of game design. This is conducted along with several other departments at DSU.

Media

News media blasts and informative sessions about the successes and challenges that the game design students and the program at DSU face and overcome daily.

- https://www.argusleader.com/story/news/education/2022/10/05/dsu-students-knights-of-the-kitchen-table-video-game/69539037007/
- https://www.madisondailyleader.com/news/article_8595783a-433c-11ed-bac7-3fbd0df3ade7.html
- https://www.siouxfalls.business/from-global-event-to-downloadable-game-dsu-students-immerse-in-game-development/

- https://www.keloland.com/news/local-news/fight-food-monsters-in-this-game-created-by-dsu-students/