Proposal for an Undergraduate Major in Esports and Game Studies

B.S. Arts and Sciences
I. Proposed Major

This new major will be a Bachelor of Science degree through the College of Arts and Sciences in Esports and Game Studies (EGS). Initially, the major will focus on three tracks: 1.) Esports and Game Creation, 2.) Esports Management, and 3.) Application of Games in Medicine and Health. Additional concentrations and certificate programs may be proposed once the major becomes well established.

II. Rationale

A. Describe the rationale/purpose of the major.

This new four-year Arts & Sciences major is a true collaboration between five colleges at The Ohio State University: 1) The College of Arts & Sciences, 2) The Fisher College of Business, 3) The College of Education and Human Ecology, 4) The College of Engineering, and 5) The College of Medicine. This new degree is a multidisciplinary collaboration that is driven by industry needs. The Esports and Game industry is growing at an enormous pace over the past few years. According to Newzoo’s 2018 Global Esports Market Report the global esports revenues have grown over 30% for the past three years and this rate is expected to continue beyond 2021. The revenues in the industry were $250 million in 2015 and expected to reach $1.65 billion by 2021. This growth has created a dearth of properly trained college graduates to fill industry needs. This new UG major has been created to fill the void in industry.

B. Identify any unique characteristics or resources that make it particularly appropriate for Ohio State to offer the proposed major.

Ohio State is in a unique position to deliver the Esports and Game Studies UG major degree program. First, this program has support from the administration of the University from the Office of Academic Affairs, the College of Medicine, the Office of Student Life, Athletics, the College of Arts and Sciences, the College of Engineering, The Fisher College of Business, and the College of Education and Human Ecology. The Office of Student Life has been supporting the esports community since 2011 with the creation of multiple Student Organizations.
centered around creating an esports community for OSU students. In addition, the Office of Student Life is supporting the development of the Esports Arena in Lincoln Tower, which will provide state of the art equipment ranging from desktop units, virtual reality, console units, and a broadcast booth for student use. The space will also provide programming that will create leadership opportunities based on an esports ecosystem that supports inclusivity, good sportspersonship, respect, and competition. In addition, the Office of Student Life will support the Varsity Esports Program through Recreational Sports.

C. Cite the benefits for students, the institution, and the region or state.
Ohio State has an ongoing university-wide research program on esports from multiple perspectives, ensuring that this emerging industry is built around evidence-based research to ensure the health, safety, and longevity of its gamers while helping them perform at their best every day. The Wexner Medical Center with The Ohio State University have joined forces to study the convergence of brain, body, and behaviors of elite esports athletes. The new knowledge generated will benefit student success, elite athletes, and even patients.

Last, but not least, The Ohio State University has a unique relationship with industry including MLG which has its headquarters in Columbus and has a firm relationship with the Student Organizations, Esports Initiative and BuckeyeLAN. MLG has been providing micro-internship opportunities for student organization members and coaching for over 7 years. The Student Organizations have also created a rich relationship with Multivarious Games, which also has its headquarters in Columbus. In fact, Multivarious is currently working with investors to make Columbus the Mid-west center of the gaming industry. Multivarious has created multiple communities for game developers in Central Ohio including the Sandbox, the Central Ohio Gamedev Group, AbleGamers, ExtraLife, Global Game Jam, and Franklinton Fridays. This puts OSU in a unique position to partner with these industry experts to create internship opportunities and state-of-the-art lectures for our students.

The world of e-sports is on the rise with games now televised, a radio station dedicated to it and all forms of the industry from sports broadcasters, to event management and marketing, and game development and evaluations. In addition, testing and evaluations of e-sport athletes is currently ongoing to
determine drafts for leagues being formed and to evaluate health status to coaches for teams and support staff which are all part of the full sport related enterprise.

The video game industry reached over $137 billion in revenue in 2018, eclipsing film and music industries combined. Salaries range from $44K to over $185K, with an average of $111K ($108K in Columbus). It is expected to climb to $181 billion my 2021. There are over 2500 companies directly producing video games and many more indie studios and hobbiesta.

In addition, video games are being used for therapeutics of all types for neural brain and autism disorders and other type interventions including stress management. The benefits reside in the fact that we are at the cutting edge for both new and yet to be determined careers and jobs related to the industry and its reaches into medicine and other therapeutics. Games That Move You is an OSU spin-off focusing on neuro-rehab with headquarters in Columbus, OH.

D. List similar majors offered in both public and private institutions in Ohio and the U.S. Explain how these majors compare to the one proposed.

Only a few leading universities across the country offer a Bachelor of Science in Esports and/or Game Studies. However, there are at least 63 institutions that have Varsity Esports Teams. This seems to be the current trend with colleges creating a varsity competitive esports team first, then they may move forward with plans to create aligned curriculum. In Ohio, Miami University of Ohio has both a varsity esports program and an UG degree in Interactive Media Studies. Their web page states that students could pursue jobs in the following areas: “e-commerce, computational art, digital humanities, visualization, rapid prototyping, game design, physical computing, web development, game development, game studies, design thinking, interaction design, user experience design, user interface design, usability, Internet and social media marketing, virtual and augmented reality, mobile computing, and mechatronics” to name a few.

Ohio University also has a varsity esports program along with curricula within the School of Media Arts & Studies. The Games & Animation (G&A) emphasis area encourages students to explore the production of computer animation and digital games while also providing an understanding of the management and leadership
roles in these industries. This degree program is offered out of the School of Media Arts & Studies and leads to a B.S.C. degree.

In addition, the University of Akron has recently announced they are building the world’s largest esports facility to be home to the university’s new varsity, club and recreational competitive online gaming programs. Akron doesn’t seem to have any degree programs specific to esports and game studies, but do note on their web page “The program will foster experiential learning opportunities and help participants develop leadership, teambuilding and job skills. Engineering and computer science students have volunteered to build the machines for UA’s esports arena; communications students can broadcast games and provide commentary, while also serving as videography and audio experts; graphic designers can create uniforms and logos; and students in various health professions majors can work with the teams as personal trainers, sports psychologists and nutritionists.”

The University of Utah has the program that seems to be the most similar to the degree program proposed by Ohio State. Their curriculum includes a B.S. in Games, which is intended for students who want to have a career in the professional games industry or related industry such as simulation, edutainment, or visualization. This degree teaches skills to develop entertainment software, games-based learning for K-12, professional training tools, serious games for health, or scientific collaborations to address compelling societal needs.

The University of Utah also offers a B.S in Computer Science, Entertainment Arts and Engineering Emphasis. This degree is offered out of the School of Computing. It covers “As the digital entertainment industry continuously grows, employers are focusing on students who understand both sides of the industry, whether it is computer science students with additional game arts skills, game artists with computing skills, or game producers with varying specializations. This EAE specialization offers cutting edge courses designed for undergraduate students interested in pursuing careers as video game engineers and expressing themselves using digital media, including courses covering video game design and development, 3D animation, and computer-generated special effects, in addition to the full Computer Science curriculum.” Our Computer Science and Engineering Department currently offers a B.S. in CSE with a specialization in Computer Graphics and Game Design. Our proposed degree program is not intended to compete with this program. OSU’s Department of Design has partnered with CSE and several other departments in the Arts and Humanities to
offer a Games Studies Minor through the College of Arts and Sciences. Again, the proposed degree program is not intended to compete with this degree program.

The University of Utah also offers a Master of Entertainment Arts and Engineering (MEAE), and a Dual MBA/MEAE degree designed to give students all of the skills necessary to start or run a game-centric business. These are areas that OSU may delve into in the future.

The University of California, Irvine, has a Varsity Esports Program and offers a B.S. in Computer Game Science. From their catalogue this major “combines computer science with a focus on designing, building, and understanding computer games and other forms of interactive media. Students receive a firm foundation in the fundamentals of information and computer science, augmented with courses in film and media studies, mathematics, physics, and game technology.”

E. Cite the enrollment patterns of similar majors in Ohio or in the United States.

The University of Utah is the program that our enrollment numbers have been based upon. The first year of their program, they had approximately 40 students enroll in the program. The next year numbers increased to around 60, and they currently enroll 80+ students each year.

F. Describe career opportunities and/or opportunities for graduate or professional study available to persons who complete the major.

There are many career paths available to the graduates of the proposed B.S. degree. These include game programmer, video game engineers, game programmer, game designer, game writer, and software developer.

Careers and Industries available and/or of interest to students in the eSports Management and Application of Game in Medicine and Health include Event manager, eSports coach, eSports manager, marketing, sales (e.g. VR & Simulation in sports, Simulation and VR in medicine and health), health coaching, health support for eSports teams, simulation with government applications and in the educational setting. In addition, this major may appeal to students interested in graduate degrees, especially in health and medicine, including occupational therapy, physical therapy, and medicine.

This is an evolving field, and therefore, many positions are being created in such fields as PT, OT, medicine, education, professional training, etc.
The University of Utah offers a Master of Entertainment Arts and Engineering (MEAE), and a Dual MBA/MEAE degree designed to give students all of the skills necessary to start or run a game-centric business. This is one opportunity for advanced studies for a graduate of our proposed major.

The University of Pennsylvania, New York University, Rochester Institute of Technology, Savannah College of Art and Design, University of Central Florida, University of California Los Angeles, Worcester Polytechnic Institute, University of California Santa Cruz, Digipen Institute of Technology, and Michigan State University all offer advanced degrees in Game Design.

G. Describe any licensure or certification for which this major will prepare students.

There are no licensure or certifications available for this major.

III. Assessment Plan (Goals, Objectives, Evaluation): Provide a learning outcomes assessment plan for the major program.

A. State the general and specific educational goals and objectives of the major.

With substantial help and guidance from the University Institute of Teaching and Learning (UITL), full analysis of the proposed EGS program’s learning goals, outcomes, and proficiencies has been completed and mapped to the proposed courses using UCAT’s curriculum design process. An explanation of the mapping process is shown in the figure below.
Additionally, a team of faculty, and staff worked closely with a UITL instructional designer to align the curriculum goals to the courses. The program goals are as follows:

A. Systems (Critical) Thinking in Games and eSports: The successful student will be able to understand the scope and interconnections between Games and eSports professions and activities from the perspectives of design, development, deployment, management, and use.

B. Professionalism, Decision Making, and Teamwork: The successful student will be able to understand and demonstrate professional behaviors, collaborative behavior in interdisciplinary and diverse team environments, principles of leadership, and self-development as they relate to specific domains of practice in Games and eSports.

C. Communication: The successful student will be able to identify, interpret, and use oral, written, visual, and nonverbal communication skills that are effective in diverse contexts.
D. Diversity, Inclusion and Equity: The successful student will be able to embrace diversity, equity, and inclusion as critical to the quality, success, cultures, and reach of Games and eSports to attain the attitudes and practices needed to function effectively within, create and perpetuate a just, humane, and democratic society.

E. Ethics and Responsibility: The successful student will be able to examine, appraise, and execute ethical best practices in Games and eSports; including articulating and evaluating ethical dilemmas, solutions, responsibilities, and potential impacts on individual and social behavior in Games and eSports industries and cultures.

F. Influence and Responsibility: The successful student will be able to identify, articulate, appraise, and analyze the impact and responsibility of Games and eSports, including contemporary and historical roles of games in society and implement strategies to minimize any negative impact.

Please see the Appendix A for a complete list of the Expected Goals, Outcomes, and Proficiencies for EGS, which are aligned with the following curriculum outline.

B. Indicate the methods that will be used to assess whether the educational goals and learning objectives are being met.
   a. Align an evaluation method with each educational objective and expected outcome students should achieve.
   b. Specify the criteria that will be used to evaluate successful student learning.

PROGRAM ASSESSMENT: CURRICULUM DESIGN AND STUDENT LEARNING OUTCOMES

A. Systems (Critical) Thinking in Games and eSports

Program Objectives for Goal A

Understand the scope and interconnections between Games and eSports professions and activities from the perspectives of design, development, deployment, management, and use.

Student Learning Outcomes for Goal A
**Learning Outcome A.1:** Identify the gaps and opportunities in which Games and eSports could be developed and applied in entertainment, health, education, and among different applications and purposes of games.

**Learning Outcome A.2:** Evaluate needs, interdependencies and solutions for effective communication and interaction among different domains of Games and eSports.

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### Assessment Rubric

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<th>Level</th>
<th>Requirements</th>
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<tr>
<td><strong>Advanced</strong></td>
<td>• Evaluate the life-cycle of games throughout development, distribution, and use.</td>
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<tr>
<td><strong>Intermediate</strong></td>
<td>• Identify the gaps and opportunities in which Games and eSports could be developed and applied in entertainment, health, education, and among different applications and purposes of games.</td>
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</table>
| **Basic**      | • Articulate the distinctions, congruencies, and overlaps among different applications and purposes of games.  
                  • Articulate the distinctions, congruencies, and overlaps between Games and eSports.  
                  • Convey specific examples of applications of Games and eSports in the specific industry contexts of entertainment, health, education, among others.  
                  • Identify fundamental requirements of Game or eSports environments, with regards to user expectations and in the context of contemporary technologies. |

**Insufficient data to assess = 0**

### Comments

Assessed:
- AUT YR 1  KNSISM 2100 Intro to Esports
- AUT YR 1  CSE 1213 Intro to SW for Game Dev
- SPR YR 1  DSN 3104 Game Design 1
- AUT YR 2  KNSIS xxxx Perform in esports
- SPR YR 2  KNSIS xxxx Perform in esports, BUS Esports Analytics (3630.08), HTHRHSCE 4xxx
- AUT YR 3  HLTHRSC 3400 Health Promotion & Disease Prevention
- SPR YR 3  KNSISM 4509 Sport Marketing & Promotion, HLTHRSC 4xxx Use of Gaming for Health Promotion & Wellness
- AUT YR 4  Capstone 1
- SPR YR 4  Capstone 2
Learning Outcome Targets: Percentage of students earning a 4/5 (80%) on proficiency

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<tr>
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Learning Outcome A.2: Evaluate needs, interdependencies and solutions for effective communication and interaction among different domains of Games and eSports.

Assessment Rubric

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<tr>
<td>Advanced</td>
<td>- Apply approaches to reconciling conflicting performance goals, and developing acceptable compromises across various stakeholders and activities.</td>
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| Intermediate| - Analyze performance measures and/or goals throughout Games and eSports processes, products, events, and participants, including time and cost, innovation, market success and longevity, and social and health consequences.  
- Evaluate the challenges in translating and balancing performance measures and goals across various stakeholders and activities. |
| Basic   | - Outline the processes and key participants (stakeholders) involved from design to production, marketing and distribution, through usage and support. |

Insufficient data to assess = 0

Comments

Assessed:  
AUT YR 1  KNSISM 2100 Intro to Esports  
AUT YR 1  CSE 1213 Intro to SW for Game Dev  
SPR YR 1  DSN 3104 Game Design 1  
AUT YR 2  KNSIS xxxx Perform in esports
SPR YR 2  KNSIS xxxx Perform in esports,  BUS Esports Analytics (3630.08), HTHRHSC 4xxx
AUT YR 3  HLTHRSC 3400 Health Promotion & Disease Prevention
SPR YR 3  KNSISM 4509 Sport Marketing & Promotion, HTHRHSC 4xxx Use of Gaming for Health Promotion & Wellness
AUT YR 4  Capstone 1
SPR YR 4  Capstone 2

Learning Outcome 1.2 Targets: Percentage of students earning a 4/5 (80%) on proficiency

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B. Professionalism, Decision Making, and Teamwork.

Program Objectives for Goal B

Understand and demonstrate professional behaviors, collaborative behavior in interdisciplinary and diverse team environments, principles of leadership, and self-development as they relate to specific domains of practice in Games and eSports.

Student Learning Outcomes for Goal B

Learning Outcome B.1: Demonstrate competence in and apply individual skills within a specific domain of practice in preparation for entry into relevant Game and eSports contexts (e.g. design, marketing, player presentation, health and wellness).

Learning Outcome B.2: Demonstrate the expected and required professional behaviors and competencies relevant to the student’s distinct profession in Games and eSports.
Learning Outcome B.3: Articulate and demonstrate the importance of the roles and contributions of professionals in Games and eSports to interdisciplinary teams.

**Learning Outcome B.1:** Demonstrate competence in and apply individual skills within a **specific domain of practice** in preparation for entry into relevant Game and eSports contexts (e.g. design, marketing, player presentation, health and wellness).

**Assessment Rubric**

| Intermediate | • Demonstrate the knowledge and skills necessary and/or required for entry-level professional employment. |
|             | • Conduct self-assessments and articulate plans for future professional development through written and verbal self-reflection and self-assessment |
| Basic       | • Identify and appraise individual aptitudes and skills most beneficial to specific domains in Games and eSports. |

Insufficient data to assess = 0

**Comments**

Assessed:  
- AUT YR 1  KNSISM 2100 Intro to Esports  
- AUT YR 1  CSE 1213 Intro to SW for Game Dev  
- SPR YR 1  DSN 3104 Game Design 1  
- AUT YR 2  KNSIS xxxx Perform in esports  
- SPR YR 2  KNSIS xxxx Perform in esports, BUS Esports Analytics (3630.08), HTHRHSC 4xxx  
- AUT YR 3  HLTHRSC 3400 Health Promotion & Disease Prevention  
- SPR YR 3  KNSISM 4509 Sport Marketing & Promotion, HLTHRSC 4xxx Use of Gaming for Health Promotion & Wellness  
- AUT YR 4  Capstone 1  
- SPR YR 4  Capstone 2

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### Learning Outcome B.2:
Demonstrate the expected and required professional behaviors and competencies relevant to the student’s distinct profession in Games and eSports.

**Assessment Rubric**

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<td>Advanced</td>
<td>• Curate a portfolio that represents the breadth and depth of work, education, and/or products.</td>
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<td>Intermediate</td>
<td>• Demonstrate appropriate professional boundaries and appropriate professional expression, deportment and dress.</td>
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<td>• Demonstrate work behaviors that reflect an understanding of professional standards and code of ethics appropriate to the practice environment.</td>
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<tr>
<td>Basic</td>
<td>• Demonstrate access and use of research and resources related to the professional standards and behaviors associated with the chosen profession.</td>
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Insufficient data to assess = 0

**Comments**

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- AUT YR 1: KNSISM 2100 Intro to Esports
- AUT YR 1: CSE 1213 Intro to SW for Game Dev
- SPR YR 1: DSN 3104 Game Design 1
- AUT YR 2: KNSIS xxxx Perform in esports
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**Learning Outcome B.3:** Articulate and demonstrate the importance of the roles and contributions of professionals in Games and eSports to **interdisciplinary teams**.

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| Advanced  | • Practice effective decision making, problem solving, conflict management, and adjust to team and individual task demands.  
• Evaluate and explain the means (principles and frameworks) by which one organizes collaborative projects to ensure shared goals and outcomes. |
| Intermediate | • Explain one’s own professional and functional role as a contributor to a team, as well as common limitations therein.  
• Recognize and describe the roles and contributions of other team members in effective collaboration and communication.  
• Exhibit respectful and effective professional behaviors in communications, collaboration and relationship building in team projects. |
| Basic     | • Explain the benefits, common dynamics and challenges of working in a team to develop innovations and evolve practice Games and eSports.  
• Identify and describe the roles and responsibilities of professionals and consumers involved in specific domains of practice in Games and eSports. |

*Insufficient data to assess = 0*

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C. Communication

Program Objectives for Goal C

Identify, interpret, and use oral, written, visual, and nonverbal communication skills that are effective in diverse contexts.

Student Learning Outcomes for Goal C

Learning Outcome C.1: Develop written communications effectively and appropriately to a diverse audience leveraging a range of written documentation modalities.

Learning Outcome C.2: Develop oral presentations effectively and appropriately to a diverse audience leveraging a range of oral presentation modalities.

Learning Outcome C.3: Demonstrate approachability and confidence in communication with colleagues, consumers, and clients.
Learning Outcome C.1: Develop written communications effectively and appropriately to a diverse audience leveraging a range of written documentation modalities.

Assessment Rubric

<table>
<thead>
<tr>
<th>Level</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>• Prepare professional documentation.</td>
</tr>
<tr>
<td></td>
<td>• Synthesize content for use in written documentation.</td>
</tr>
<tr>
<td>Intermediate</td>
<td>• Exhibit professional writing skills.</td>
</tr>
<tr>
<td>Basic</td>
<td>• Recognize the most effective principles of good communications.</td>
</tr>
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</table>

Insufficient data to assess = 0

Comments

Assessed:
- AUT YR 1 KNSISM 2100 Intro to Esports
- AUT YR 1 CSE 1213 Intro to SW for Game Dev
- SPR YR 1 DSN 3104 Game Design 1
- AUT YR 2 KNSIS xxxx Perform in esports
- SPR YR 2 KNSIS xxxx Perform in esports, BUS Esports Analytics (3630.08), HTHRHSC 4xxx
- AUT YR 3 HLTHRSC 3400 Health Promotion & Disease Prevention
- SPR YR 3 KNSISM 4509 Sport Marketing & Promotion, HLTHRSC 4xxx Use of Gaming for Health Promotion & Wellness
- AUT YR 4 Capstone 1
- SPR YR 4 Capstone 2

Learning Outcome Targets: Percentage of students earning a 4/5 (80%) on proficiency

<table>
<thead>
<tr>
<th>Semester</th>
<th>% Students meeting Basic Target</th>
<th>% Students meeting Intermediate Target</th>
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</table>
**Learning Outcome C.2:** Develop oral presentations effectively and appropriately to a diverse audience leveraging a range of oral presentation modalities.

**Assessment Rubric**

<table>
<thead>
<tr>
<th>Level</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>• Prepare effective and appealing visual and oral presentations.</td>
</tr>
<tr>
<td></td>
<td>• Synthesize content for use in presentation.</td>
</tr>
<tr>
<td>Intermediate</td>
<td>• Exhibit professional presentation skills.</td>
</tr>
<tr>
<td>Basic</td>
<td>• Recognize the most effective principles of good communications.</td>
</tr>
</tbody>
</table>

Insufficient data to assess = 0

**Comments**

**Assessed:**
- AUT YR 1      KNSISM 2100 Intro to Esports
- AUT YR 1      CSE 1213 Intro to SW for Game Dev
- SPR YR 1      DSN 3104 Game Design 1
- AUT YR 2      KNSIS xxxx Perform in esports
- SPR YR 2      KNSIS xxxx Perform in esports, BUS Esports Analytics (3630.08), HTHRSC 4xxx
- AUT YR 3      HLTHRSC 3400 Health Promotion & Disease Prevention
- SPR YR 3      KNSISM 4509 Sport Marketing & Promotion, HLTHRSC 4xxx Use of Gaming for Health Promotion & Wellness
- AUT YR 4      Capstone 1
- SPR YR 4      Capstone 2

**Learning Outcome Targets:** Percentage of students earning a 4/5 (80%) on proficiency

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</tbody>
</table>
Learning Outcome C.3: Demonstrate approachability and confidence in communication with colleagues, consumers, and clients.

Assessment Rubric

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>• Leverage opportunities and strategies for adapting to the needs of a given audience.</td>
</tr>
<tr>
<td>Intermediate</td>
<td>• Deliver organized, effective, and appealing visual and oral presentations.</td>
</tr>
<tr>
<td>Basic</td>
<td>• Listen and be responsive to communications of others.</td>
</tr>
</tbody>
</table>

Insufficient data to assess = 0

Comments

Assessed:

- AUT YR 1 KNSISM 2100 Intro to Esports
- AUT YR 1 CSE 1213 Intro to SW for Game Dev
- SPR YR 1 DSN 3104 Game Design 1
- AUT YR 2 KNSIS xxxx Perform in esports
- SPR YR 2 KNSIS xxxx Perform in esports, BUS Esports Analytics (3630.08), HTHRSC 4xxx
- AUT YR 3 HTHRSC 3400 Health Promotion & Disease Prevention
- SPR YR 3 KNSISM 4509 Sport Marketing & Promotion, HTHRSC 4xxx Use of Gaming for Health Promotion & Wellness
- AUT YR 4 Capstone 1
- SPR YR 4 Capstone 2

Learning Outcome Targets: Percentage of students earning a 4/5 (80%) on proficiency

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</table>
### D. Diversity, Inclusion and Equity

#### Program Objectives for Goal D

Embrace diversity, equity, and inclusion as critical to the quality, success, cultures, and reach of Games and eSports to attain the attitudes and practices needed to function effectively within, create and perpetuate a just, humane, and democratic society.

#### Student Learning Outcomes for Goal D

**Learning Outcome D.1:** Students will include multiple perspectives, cultures, and demographics across all aspects of Games and eSports.

**Learning Outcome D.2:** Students will facilitate an equitable and inclusive environment that is respectful and welcoming to a diverse workforce and Games and eSports community.

**Learning Outcome D.3:** Students will analyze how games can be used to promote a diverse, inclusive, and equitable society.

#### Learning Outcome D.1:

Students will include multiple perspectives, cultures, and demographics across all aspects of Games and eSports.

#### Assessment Rubric

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>• Devise solutions to complex problems with products and processes by integrating multiple perspectives and demographics.</td>
</tr>
<tr>
<td>Intermediate</td>
<td>• Appraise the impact of diverse, inclusive, and equitable representation and perspectives on Games and eSports products and processes.</td>
</tr>
</tbody>
</table>
- Integrate multiple perspectives, cultures, and demographics into game design, development, management, implementation, use, and competition.

**Basic**

- Appraise products and processes in Games and eSports to determine the representation of and impact on diverse stakeholder groups.
- Articulate the importance of multiple perspectives, cultures, and demographics in game design, development, management, implementation, use, and competition.

Insufficient data to assess = 0

**Comments**

**Assessed:**
- AUT YR 1 KNSISM 2100 Intro to Esports
- AUT YR 1 CSE 1213 Intro to SW for Game Dev
- SPR YR 1 DSN 3104 Game Design 1
- AUT YR 2 KNSIS xxxx Perform in esports
- SPR YR 2 KNSIS xxxx Perform in esports, BUS Esports Analytics (3630.08), HTHRHSC 4xxx
- AUT YR 3 HLTHRSC 3400 Health Promotion & Disease Prevention
- SPR YR 3 KNSISM 4509 Sport Marketing & Promotion, HLTHRSC 4xxx Use of Gaming for Health Promotion & Wellness
- AUT YR 4 Capstone 1
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**Learning Outcome Targets:** Percentage of students earning a 4/5 (80%) on proficiency

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</table>
**Learning Outcome D.2:** Students will facilitate an equitable and inclusive environment that is respectful and welcoming to a diverse workforce and Games and eSports community.

**Assessment Rubric**

<table>
<thead>
<tr>
<th>Level</th>
<th>Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>• Devise approaches to become an activist for creation of an equitable and inclusive workforce and environment for the Games and eSports community.</td>
</tr>
<tr>
<td>Intermediate</td>
<td>• Advocate for equitable and inclusive workforce and community for the Games and eSports community.</td>
</tr>
<tr>
<td>Basic</td>
<td>• Articulate how to identify an inclusive and welcoming environment and community (online or in-person) for the Games and eSports community.</td>
</tr>
</tbody>
</table>

Insufficient data to assess = 0

**Comments**

Assessed:  
AUT YR 1  KNSISM 2100 Intro to Esports  
AUT YR 1  CSE 1213 Intro to SW for Game Dev  
SPR YR 1  DSN 3104 Game Design 1  
AUT YR 2  KNSIS xxxx Perform in esports  
SPR YR 2  KNSIS xxxx Perform in esports, BUS Esports Analytics (3630.08), HTHRHSRC 4xxx  
AUT YR 3  HLTHRSC 3400 Health Promotion & Disease Prevention  
SPR YR 3  KNSISM 4509 Sport Marketing & Promotion, HLTHRSC 4xxx Use of Gaming for Health Promotion & Wellness  
AUT YR 4  Capstone 1  
SPR YR 4  Capstone 2

**Learning Outcome Targets:** Percentage of students earning a 4/5 (80%) on proficiency

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<tr>
<td>Spring YR 3 Target</td>
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</tr>
</tbody>
</table>
Learning Outcome D.3: Students will analyze how games can be used to promote a diverse, inclusive, and equitable society.

Assessment Rubric

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>Analyze implementation strategies to use game design, development, performance, and management of Games and eSports to promote a diverse, inclusive, and equitable society.</td>
</tr>
<tr>
<td>Intermediate</td>
<td>Identify opportunities to use game design, development, performance, and management of Games and eSports to promote a diverse, inclusive, and equitable society.</td>
</tr>
<tr>
<td>Basic</td>
<td>Articulate how diversity, inclusion, and equity objectives can inform design, development, performance, and management of Games and eSports people and processes, based on established and rigorously validated research findings.</td>
</tr>
</tbody>
</table>

Insufficient data to assess = 0

Comments

Assessed:
- AUT YR 1 KNSISM 2100 Intro to Esports
- AUT YR 1 CSE 1213 Intro to SW for Game Dev
- SPR YR 1 DSN 3104 Game Design 1
- AUT YR 2 KNSIS xxxx Perform in esports
- SPR YR 2 KNSIS xxxx Perform in esports, BUS Esports Analytics (3630.08), HTHRHSC 4xxx
- AUT YR 3 HLTHRSC 3400 Health Promotion & Disease Prevention
- SPR YR 3 KNSISM 4509 Sport Marketing & Promotion, HLTHRSC 4xxx Use of Gaming for Health Promotion & Wellness
- AUT YR 4 Capstone 1
- SPR YR 4 Capstone 2
Learning Outcome Targets: Percentage of students earning a 4/5 (80%) on proficiency

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<tr>
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</tbody>
</table>

E. Ethics and Responsibility

Program Objectives for Goal E

Examine and appraise and execute ethical best practices in Games and eSports; including articulating and evaluating ethical dilemmas, solutions, responsibilities, and potential impacts on individual and social behavior in Games and eSports industries and cultures.

Student Learning Outcomes for Goal E

Learning Outcome E.1: Create, design, market or support games, events or engagements that are responsive to the sensitivities of, and potential impact on, all stakeholder groups and individuals.

Learning Outcome E.2: Integrate the needs of multiple stakeholders to ensure veracity, truth, and transparency in appropriate aspects of Games and eSports (e.g. personal data, cost, contracts, plagiarism, copyright, intellectual property, Trojan horse, players)

Learning Outcome E.3: Adhere to ethical best practices and legal expectations specific to roles in Games and eSports.
**Learning Outcome E.1:** Create, design, market or support games, events or engagements that are responsive to the sensitivities of, and potential impact on, all stakeholder groups and individuals.

**Assessment Rubric**

<table>
<thead>
<tr>
<th>Level</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>• Evaluate the importance of maintaining privacy and confidentiality of users, user data, customers, and clients.</td>
</tr>
</tbody>
</table>
| Intermediate| • Demonstrate approaches for monitoring and maintaining beneficence, privacy and confidentiality, in the deployment of Games and eSports.  
• Demonstrate approaches by which sufficiency in beneficence, privacy and confidentiality is evaluated across processes and decision-making in Games and eSports. |
| Basic       | • Convey how beneficence, privacy and confidentiality factor into processes and decision-making across Games and eSports.  
• Identify and apply the role of beneficence as a standard in Games and eSports (e.g. avoid harm to others; civility; noncoercive work environment; respect and fairness to others). |

**Insufficient data to assess = 0**

**Comments**

---

**Assessed:**

- AUT YR 1  KNSISM 2100 Intro to Esports
- AUT YR 1  CSE 1213 Intro to SW for Game Dev
- SPR YR 1  DSN 3104 Game Design 1, CSE 2xy1 Digital Game Dev 1
- AUT YR 3  DSN 3300 Storytelling & World Building, KNSISM 4607
- SPR YR 3  DSN 4104 Game Design 2, CSE 2501 Social, Ethical, Prof Issues
- AUT YR 4  Capstone 1
- SPR YR 4  Capstone 2

**Learning Outcome Targets:** Percentage of students earning a 4/5 (80%) on proficiency

<table>
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</tbody>
</table>
Learning Outcome E.2: Integrate the needs of multiple stakeholders to ensure veracity, truth, and transparency in appropriate aspects of Games and eSports (e.g. personal data, cost, contracts, plagiarism, copyright, intellectual property, Trojan horse, players)

Assessment Rubric

| Intermediate | • Demonstrate approaches for monitoring and maintaining veracity, truth and transparency in Games and eSports.  
| • Demonstrate approaches by which veracity, truth and transparency should be applied in Games and eSports. |
| Basic | • Explain the direct and indirect costs to key stakeholders in industry cases when veracity, truth and transparency were not sufficiently addressed or evaluated.  
| • Describe the importance of veracity, truth and transparency across various Games and eSports. |

Insufficient data to assess = 0

| Comments |

Assessed:  
AUT YR 1  KNSISM 2100 Intro to Esports  
AUT YR 1  CSE 1213 Intro to SW for Game Dev  
SPR YR 1  DSN 3104 Game Design 1, CSE 2xy1 Digital Game Dev 1  
AUT YR 3  DSN 3300 Storytelling & World Building, KNSISM 4607  
SPR YR 3  DSN 4104 Game Design 2, CSE 2501 Social, Ethical, Prof Issues  
AUT YR 4  Capstone 1  
SPR YR 4  Capstone 2

Learning Outcome Targets: Percentage of students earning a 4/5 (80%) on proficiency

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</table>

**Learning Outcome E.3:** Adhere to ethical best practices and legal expectations specific to roles in Games and eSports.

**Assessment Rubric**

<table>
<thead>
<tr>
<th>Level</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermediate</td>
<td>• Demonstrate approaches for monitoring and maintaining legal adherence in Games and eSports.</td>
</tr>
<tr>
<td></td>
<td>• Demonstrate approaches to identifying breaches and risks of breaches across Games and eSports professions and processes.</td>
</tr>
<tr>
<td>Basic</td>
<td>• Articulate legal regulations and frameworks for ethical best practices, specific to the focal professional area studied in Games and eSports.</td>
</tr>
<tr>
<td></td>
<td>• Articulate legal regulations and frameworks for ethical best practices, which apply broadly across all roles and contexts in Games and eSports.</td>
</tr>
</tbody>
</table>

Insufficient data to assess = 0

**Comments**

**Assessed:**
- AUT YR 1 KNSISM 2100 Intro to Esports
- AUT YR 1 CSE 1213 Intro to SW for Game Dev
- SPR YR 1 DSN 3104 Game Design 1, CSE 2xy1 Digital Game Dev 1
- AUT YR 3 DSN 3300 Storytelling & World Building, KNSISM 4607
- SPR YR 3 DSN 4104 Game Design 2, CSE 2501 Social, Ethical, Prof Issues
- AUT YR 4 Capstone 1
- SPR YR 4 Capstone 2

**Learning Outcome Targets:** Percentage of students earning a 4/5 (80%) on proficiency
Program Objectives for Goal F

Identify, articulate, appraise, and analyze the impact and responsibility of Games and eSports, including contemporary and historical roles of games in society and implement strategies to minimize any negative impact.

Student Learning Outcomes for Goal F

**Learning Outcome F.1:** Articulate how Games and eSports impact human health and behavior, contemporary community standards, social justice, and social change and implement strategies to minimize negative impact.

**Learning Outcome F.2:** Outline the history and current state of formal research into social impacts of Games and eSports.

**Learning Outcome F.3:** Articulate how human health and social justice objectives can inform design, development, performance, and management of Games and eSports people and processes, based on established and rigorously validated research findings.

**Learning Outcome F.4:** Evaluate and apply current scientific, technological, and environmental innovations, evidence, and trends, and their impact on individuals, populations, products and processes in Games and eSports.
<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>Implement strategies in all aspects of Games and eSports to eliminate or minimize negative impacts on human health and behavior, contemporary community standards, social justice, and social change.</td>
</tr>
</tbody>
</table>
| Intermediate| • Analyze the extent to and manner in which Games and eSports influence society.  
• Analyze methods to minimize or mitigate any negative impact that Games and eSports may have on human health and behavior, contemporary community standards, social justice, and social change. |
| Basic   | • Identify the historical and evolving nature of societal views of Games and eSports, such as generational differences and cultural biases in perspectives.  
• Identify how Games and eSports can impact human health and behavior, contemporary community standards, social justice, and social change in a variety of contexts. |

Insufficient data to assess = 0

Comments

Assessed:  
- AUT YR 1 KNSISM 2100 Intro to Esports  
- AUT YR 1 CSE 1213 Intro to SW for Game Dev  
- SPR YR 1 DSN 3104 Game Design 1  
- AUT YR 2 KNSIS xxxx Perform in esports  
- SPR YR 2 KNSIS xxxx Perform in esports, BUS Esports Analytics (3630.08), HTHRHSC 4xxx  
- AUT YR 3 HLTHRSC 3400 Health Promotion & Disease Prevention  
- SPR YR 3 KNSISM 4509 Sport Marketing & Promotion, HLTHRSC 4xxx Use of Gaming for Health Promotion & Wellness  
- AUT YR 4 Capstone 1  
- SPR YR 4 Capstone 2

Learning Outcome Targets: Percentage of students earning a 4/5 (80%) on proficiency

<table>
<thead>
<tr>
<th>Semester</th>
<th>% Students meeting Basic Target</th>
<th>% Students meeting Intermediate Target</th>
<th>% Students meeting Advanced Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autumn YR 1 Target</td>
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<tr>
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</tr>
<tr>
<td>Spring YR 3 Target</td>
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</tr>
</tbody>
</table>
Learning Outcome F.2: Outline the history and current state of formal research into social impacts of Games and eSports.

Assessment Rubric

<table>
<thead>
<tr>
<th>Level</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>• Integrate best available and most relevant evidence into project and process decision making and implementation.</td>
</tr>
</tbody>
</table>
| Intermediate | • Distinguish the best available and most relevant evidence from that which is less rigorous or applicable to a specific product or process.  
  • Appraise the quality and scope of the body of knowledge related to the impact of Games and eSports on social, educational, behavioral, and health outcomes. |
| Basic     | • Explain how evidence is collected and used to assess the impact of various levels and types of engagement in Games and eSports, including common flaws in and risk associated with such assessment.  
  • Identify critical differences in how the level and type of engagement in Games and eSports are linked to positive and negative social, familial, educational, behavioral, and health outcomes. (want to be as inclusive as possible) |

Insufficient data to assess = 0

Comments

Assessed:  
AUT YR 1  KNSISM 2100 Intro to Esports  
AUT YR 1  CSE 1213 Intro to SW for Game Dev  
SPR YR 1  DSN 3104 Game Design 1  
AUT YR 2  KNSIS xxxx Perform in esports  
SPR YR 2  KNSIS xxxx Perform in esports, BUS Esports Analytics (3630.08), HTHRHSC 4xxx  
AUT YR 3  HLTHRSC 3400 Health Promotion & Disease Prevention  
SPR YR 3  KNSISM 4509 Sport Marketing & Promotion, HLTHRSC 4xxx Use of Gaming for Health Promotion & Wellness  
AUT YR 4  Capstone 1  
SPR YR 4  Capstone 2
Learning Outcome Targets: Percentage of students earning a 4/5 (80%) on proficiency

<table>
<thead>
<tr>
<th>Semester</th>
<th>% Students meeting Basic Target</th>
<th>% Students meeting Intermediate Target</th>
<th>% Students meeting Advanced Target</th>
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<tr>
<td>Spring YR 1 Target</td>
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<tr>
<td>Spring YR 4 Target</td>
<td>90</td>
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<td>80</td>
</tr>
</tbody>
</table>

**Learning Outcome F.3:** Articulate how human health and social justice objectives can inform design, development, performance, and management of Games and eSports people and processes, based on established and rigorously validated research findings.

**Assessment Rubric**

**Advanced**
- Integrate knowledge of human health and behavior, contemporary community standards, social justice, and social change into all aspects of Games and eSports to eliminate or minimize negative impacts.

**Intermediate**
- Analyze the extent to and manner in which society influences the Games and eSports industries.

**Basic**
- Identify the historical and evolving nature of society, and how this influences Games and eSports.
- Identify how human health and behavior, contemporary community standards, social justice, and social change impact Games and eSports.

Insufficient data to assess = 0

**Comments**

**Assessed:**
- AUT YR 1 KNSISM 2100 Intro to Esports
- AUT YR 1 CSE 1213 Intro to SW for Game Dev
SPR YR 1  DSN 3104 Game Design 1  
AUT YR 2  KNSIS xxxx Perform in esports  
SPR YR 2  KNSIS xxxx Perform in esports, BUS Esports Analytics (3630.08), HTHRHSC 4xxx  
AUT YR 3  HLTHRSC 3400 Health Promotion & Disease Prevention  
SPR YR 3  KNSISM 4509 Sport Marketing & Promotion, HLTHRSC 4xxx Use of Gaming for Health Promotion & Wellness  
AUT YR 4  Capstone 1  
SPR YR 4  Capstone 2

Learning Outcome Targets: Percentage of students earning a 4/5 (80%) on proficiency

<table>
<thead>
<tr>
<th>Semester</th>
<th>% Students meeting Basic Target</th>
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<th>% Students meeting Advanced Target</th>
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<tr>
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<td>80</td>
</tr>
</tbody>
</table>

**Learning Outcome F.4:** Evaluate and apply current scientific, technological, and environmental innovations, evidence, and trends, and their impact on individuals, populations, products and processes in Games and eSports.

**Assessment Rubric**

<table>
<thead>
<tr>
<th>Advanced</th>
<th>Integrate evidence into professional decision-making about behaviors, processes, designs, and products.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermediate</td>
<td>Critically appraise the scientific, technological, and/or environmental research and trends related to Games and eSports.</td>
</tr>
</tbody>
</table>
| Basic            | Explain how Games and eSports can drive scientific discovery, technological advancement and innovation.  
                   | Demonstrate thorough understanding of scientific, technological, and environmental trends in the design and development of |

31
processes, products, and plans for individuals, populations, and industry.

Insufficient data to assess = 0

Comments

Assessed:

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT YR 1</td>
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<td>AUT YR 1</td>
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<tr>
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<td>HLTHRSC 3400 Health Promotion &amp; Disease Prevention</td>
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<tr>
<td>SPR YR 3</td>
<td>KNSISM 4509 Sport Marketing &amp; Promotion, HLTHRSC 4xxx Use of Gaming for Health Promotion &amp; Wellness</td>
</tr>
<tr>
<td>AUT YR 4</td>
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<tr>
<td>SPR YR 4</td>
<td>Capstone 2</td>
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Learning Outcome Targets: Percentage of students earning a 4/5 (80%) on proficiency

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<tr>
<td>Spring YR 4 Target</td>
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<td>80</td>
</tr>
</tbody>
</table>

C. Provide the time line over which the assessment plan will be implemented.

Initially data for all 6 Goals will be aggregated up into the appropriate Learning Objectives over a 4 year plan since all courses in the program will not be created and implemented until year 4.

After year 4, assessment data will be collected over a 3 year period according to the following plan:
D. Describe how outcomes information will be used to improve student learning and program effectiveness.

The curriculum will continuously be improved based on the assessment outcomes and student feedback. Each year after all assessment data have been collected and analyzed, the core teaching team for each tract will meet and convene for an annual “course round-up.” During the round-up meeting, the assessment data will be discussed and an action plan will be developed for improvements to courses. Monthly afterward there will be follow-up meetings to check-up on the progress of all course modifications.

IV. Relationship to Other Programs

A. Describe current major and minor programs in the department(s) and how they relate to the proposed major.

The Game Studies and eSports major is likely to have considerable appeal to students interested in a wide range of existing Arts and Science disciplines, including Design, Computer and Information Science, Communication (particularly their New Media & Communication Technology major), Art, and others. The proposed major maps onto the Arts and Sciences emphasis on interdisciplinary studies, and to our college’s interest in creating stronger ties to industry and strengthening networks for internships and career opportunities.

The Department of Design offers three professional majors in Industrial Design, Interior Design, and Visual Communication Design. We are proposing a new design major in “Digital Experience Design.” This major will focus on using computational skills and emerging technology (animation, game design, AR/VR) to create design solutions for real-world design problems. While experiential game design will be part of the curriculum for these new designers, they will also be encouraged to leverage the principles of game design to a broad range of problems and circumstances. The new design major can contribute students with more advanced design expertise to capstones and other interdisciplinary projects/courses, as appropriate. We do not see them as in conflict.
The Department of Design also supports the interdisciplinary Game Studies minor in the College of Arts and Sciences with its three Game Design courses. This sequence of game design courses that contributes to our new major and the Games Studies minor will also be a requirement for students in the “Making It” track of the eSports and Games major. We see this convergence of interest in design as a guarantee that all of these courses will have strong demand from a broad cohort of students. It extends our reach and impact, which is important since our own majors are limited in number, due to our selective admission process. It also provides a valuable opportunity for us to collaborate with the Computer Science Engineering department to create a computationally-strong game design and development track of study. These types of intra-college cooperation are not common but they are beneficial to students and faculty alike and should be encouraged and rewarded.

The Computer Science and Engineering department

It is critical to note that the “Making It” track will require the hiring of several new faculty members and the provision of an expanded range of computer labs/maker spaces for instruction and prototyping. This can be accomplished as phases over a period of four years, however, as the major fills with students, one year at a time.

In the School of Health and Rehabilitation Sciences, there are seven health-oriented majors that relate to the BS in EGS Medicine and Health track. Of these, six are professional programs in Athletic Training, Health Information Management and Systems, Medical Dietetics, Medical Laboratory Science, Radiologic Sciences and Therapy, and Respiratory Therapy. The seventh, Health Sciences, is a broad undergraduate degree that prepares students for an entry-level career in health care/services. Health Sciences and Athletic Training are the two majors most closely aligned with the BS in EGS through their emphasis on health and health promotion (Health Sciences), and care of athletes and athletic injuries (Athletic Training). It is likely that students in both these majors will seek elective coursework through the EGS Medicine and Health Tract.

B. Identify any overlaps with other programs or departments within the university. Append letters of concurrence or objection from related units.

Letters of concurrence are included in an Appendix C.
C. Indicate any cooperative arrangements with other institutions and organizations that will be used to offer this major.

None.

D. Specify any articulation arrangements (direct transfer opportunities) with other institutions that will be in effect for the major.

None.

E. Provide information on the use of consultants or advisory committees in the development of the major. Describe any continuing consultation.

The EGS Curriculum committee worked with industry experts who advised the committee on the industry needs. The committee also worked with substantial guidance from Teresa Johnson, Assistant Director of Assessment and Curriculum Design of the University Institute of Teaching and Learning, to fully analyze the proposed EGS program learning goals, outcomes, and proficiencies and map them to the proposed courses.

F. Indicate whether this major or a similar major was submitted for approval previously. Explain at what stage and why that proposal was not approved or was withdrawn.

This major has not been submitted previously.

G. Indicate where students will be drawn from, e.g., existing academic programs, outside of the university, etc. Estimate the mix of students entering the major internally and externally.

The proposed EGS program will have the potential to enroll students from several sources, initially focusing on current Ohio State main campus students who may find the program to be the best fit for their interests and goals and future applicants who may not have considered Ohio State without the EGS.

Initially, the largest number of students in the program may be current Ohio State main campus students who are enrolled in other major programs but want to transfer into the new EGS major. Based on the number of email from
current Ohio State students requesting further information about the EGS major and what courses to enroll in, there will be an initial migration of students to EGS. The currently available Columbus campus degree programs that are similar to the EGS major are highly competitive due to limited capacity. Enrollment numbers for some of the programs are listed below, and show the numbers of students who are interested in degrees that are similar to EGS but were not accepted due to the limited capacity. Some students may consider transferring to the EGS major once it is available.

V. Student Enrollment

Enrollment in Arts & Sciences, Business, Computer Science, Design, and Health

<table>
<thead>
<tr>
<th>Term</th>
<th>Human Science Exercise Science</th>
<th>Sport Industry Sport Management</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Applied</td>
<td>Enrolled</td>
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<tr>
<td>AU16</td>
<td>274</td>
<td>274</td>
</tr>
<tr>
<td>AU17</td>
<td>249</td>
<td>249</td>
</tr>
<tr>
<td>AU18</td>
<td>252</td>
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</tr>
</tbody>
</table>

One area of potential students for the BS-EGS is the Department of Human Sciences, particularly the Sport Industry major. For the past 8 years the Sport Industry major has increased in student enrollment by over 250% and still growing. Interest in jobs related to the industry of sports is at an all-time high. Considering the popularity of esports and game studies and its relationship to the industry of sports, it seems highly likely that some of the SI students will choose the BS-EGS major.
One important source for the BS-EGS program is the School of Health and Rehabilitation Sciences. With a large Health Sciences undergraduate program of approximately 780 students. Students within this major seek positions working in the community in health promotion and disease prevention as well as continue their education in medical and rehabilitation professions; many of these students would find this program appealing. In the previous three years, 786 students have applied to the Health Sciences program and 576 have been admitted. This means a potential applicant pool of about 70 students per year who were not admitted to health sciences, plus a proportion of those admitted who might be interested in this major. We would anticipate approximately 100 – 150 applicants from the Health Sciences applicant pool would be interested in applying to the BS in EGS.

In addition, students interested in the SHRS Athletic Training program may be interested in the eSports Management and Application of Games in Medicine and Health tracts. In the previous three years, 170 students have applied to the Athletic Training program and 89 have enrolled. This leaves a potential applicant pool of 81 students not admitted to AT who might be interested, in addition (27 per year) to a proportion of students who would choose this over AT. We anticipate a smaller proportion than with HS but perhaps an additional 10 students, resulting in a potential application pool of 137 – 187 from the SHRS. Additionally, we anticipate interest in the Application of Games in Medicine and Health tract among students in psychology and business, students interested in the newly proposed SHRS Assistive Technology and Rehabilitation Certificate, and those interested in pursuing graduate degrees in the COM (Medicine, Occupational Therapy, Physical Therapy, and Dietetics)

<table>
<thead>
<tr>
<th>Term</th>
<th>SHRS Applications and Enrollment</th>
<th>Design</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Health Sciences Applied</td>
<td>Health Sciences Accepted/Enrolled</td>
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<tr>
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<td>197</td>
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<tr>
<td>AU18</td>
<td>287</td>
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</table>
One important source for the BS-EGS program is the Department of Computer Science and Engineering (CSE). With an undergraduate program CSE offers a B.S. degree in both the College of Engineering (home college) and College of Arts and Sciences. Students within this major seek positions all across the country in various technical positions and tech companies. CSE has a long and highly ranked tradition in computer graphics with many alumni at various Hollywood studios like Pixar, Dreamworks and Disney. They also have a strong presence in the video game industry (EA, Riot Games, Zynga, Raw Thrills, Wargaming, and many other game studios) as well as Disney and Universal theme parks. Other students are working on games or multimedia at Sony, nVida, Google, Apple and Facebook. CSE also is a world leader in AI and machine learning; data mining and analytics and network security. Many of these students would find this program appealing. In the previous three years, approximately 3,300 students have applied to the CSE program and about 55% get admitted (1800). Many others have not applied due to the high GPA requirement. This means a potential applicant pool of about 600 students per year who were not admitted to computer science, plus a proportion of those admitted who might be interested in this major. We would anticipate approximately 650 applicants from the CSE applicant pool would be interested in applying to the BS in EGS.

<table>
<thead>
<tr>
<th>Term</th>
<th>Computer Science Engineering Applications &amp; Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CSE Applied (Engineering)</td>
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<tr>
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<td>AU17</td>
<td>600</td>
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<tr>
<td>AU18</td>
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</tr>
</tbody>
</table>

A second source of students are NFY students enrolling at Ohio State because they have heard about this new major. This number may not be large in this first year of the program because of the timing of the approval of the major coming so close to the summer. However, based on the number of email and phone calls I have received from high school students, parents of high school students, and students enrolled at other institutions, I believe that once the program is fully established we will attract a sizeable number of NFY students to Ohio State specifically for this degree program. Once the program has a web page presence with specific information about the major including the bingo sheets, Ohio State will begin to attract a large number of NFY students to the EGS UG major.
Based on the foregoing data, estimated enrollments will be sufficient to achieve the self-sustaining levels detailed below, with approximately 36 students starting in each of the 3 tracts of the program in Rank 1 in years 1 & 2, and 72 students in each of the 3 tracts from year 3 forward.

<table>
<thead>
<tr>
<th>Year</th>
<th>Esports &amp; Game Studies Expected 1st year Enrollment</th>
<th>Game Creation</th>
<th>Games in Medicine and Health</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>AU19</td>
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<td>AU20</td>
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<td>AU21</td>
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<tr>
<td>AU22</td>
<td>72</td>
<td>72</td>
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</table>

**VI. Requirements**

A. The courses for each of the 3 tracts are listed below in the form of a NFY bingo sheet. The total degree credit hours are between 121 and 123. Because of the unique nature of this program, which derives from its emphasis of interdisciplinary courses between the three tracts, many of the courses in the curriculum shown below are new to Ohio State (indicated by an **). The courses shaded in blue are the Core Curriculum that students in all 3 tracts must take. In this manner, if students want to double major or even minor in one of the other tracts they can easily do so.
### Possible Electives for the Esports and Game Creation Tract

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSE 2331</td>
<td>3</td>
<td>Data Structures &amp; Algorithms ---IS A PRE-REQ FOR CSE 3521</td>
</tr>
<tr>
<td>CSE 2421</td>
<td>4</td>
<td>Systems I: Introduction to Low-Level Programming and Computer Organization</td>
</tr>
<tr>
<td>CSE 5542</td>
<td>3</td>
<td>Real-time rendering</td>
</tr>
<tr>
<td>CSE 5236</td>
<td>3</td>
<td>Mobile Application Development</td>
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<td>CSE 5524</td>
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<tr>
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<td>Credits</td>
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<td>English 2367.08</td>
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<td>The U.S. Experience: Writing About Video Games</td>
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<tr>
<td>English 4578</td>
<td>3</td>
<td>When special topic is game specific</td>
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<tr>
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<tr>
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<tr>
<td>PHIL 2455</td>
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<td>Philosophy of Videogames</td>
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<td>MUSIC 2254</td>
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<tr>
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<td>COMM 3513</td>
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<td>BUSML 3150</td>
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<td>Foundations of Marketing (Econ 2001.01 prereq)</td>
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### Esports Management Tract

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<th>Spring Semester</th>
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<td>Esports Analytics (based on 3630.08)**</td>
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<td>KNSISM XXXX Capstone 1**</td>
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<td>ENGR Multidisciplinary Capstone 2**</td>
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<td>GE 14</td>
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### Possible Electives for the Esports Management Tract

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<th>Description</th>
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</thead>
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<tr>
<td>English 2367.08</td>
<td>3</td>
<td>The U.S. Experience: Writing About Video Games</td>
</tr>
<tr>
<td>BUSADM 3630.08</td>
<td>3</td>
<td>Business Industry Immersion</td>
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<td>BUSADM 3632.08E</td>
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<td>Business Industry Immersion Project Experience</td>
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<td>BUSMGT 3331</td>
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<td>Building Visual Decision Support Systems</td>
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<tr>
<td>BUSMGT 7258</td>
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<td>Sports Analytics for Business</td>
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<tr>
<td>BUSMHR 7605</td>
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<td>Business of College Sports</td>
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<tr>
<td>BUSML 7204.01</td>
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<td>Customer Management, Pricing, and Analytics II</td>
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<tr>
<td>BUSML 7204.02</td>
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<td>Customer Management, Pricing, and Analytics II</td>
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<td>COMM 3554</td>
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<tr>
<td>PSYCH 5620</td>
<td>3</td>
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<td>When focused on video game creation</td>
</tr>
</tbody>
</table>
B. Describe other major requirements in addition to course requirements, e.g., examinations, internships, final projects.

In addition to the required core and major courses, pre-requisites, general educational courses and electives, each student will be required to create a curated portfolio of their works. This is listed in Goal B, Learning Outcome B.2: Curate a portfolio that represents the breadth and depth of work, education, and/or products. This portfolio will be monitored throughout a student’s progression through the core courses in the tract. Included in this portfolio will be the students’ final capstone product.

C. Identify from which specialized professional association(s) accreditation will be sought. List any additional resources that will be necessary to gain such accreditation.

No special professional accreditation will be sought.

VII. Relationship of Proposed Major to Mission of College/Department

The Arts and Sciences Strategic Plan pledges to provide and support excellent programs and faculty. This includes building and maintaining top programs at both the undergraduate and graduate levels, retaining and recruiting excellent and diverse faculty, increasing research/creative scholarship, and elevating teaching and learning. This major in eSports and Games has the potential to
distinguish the college and the university by supporting and expanding how gaming can contribute to human health, promote the social good, and contribute value to entertainment experiences. There is a significant creative component within the context of game design and development that also represents a valuable contemporary area for research and creative expression. By offering a project-based curricula of game design courses, we anticipate opportunities to distinguish the work of students and faculty alike; particularly works that advance the future of gaming and its applicability to a broad range of experiences in everyday life.

The proposed Bachelor of Science in eSports and Games Studies aligns with the mission of the College of Medicine, “to improve people’s lives through innovation in research, education and patient care” and with the mission of the School of Health and Rehabilitation Sciences, “to prepare future health sciences professionals through the creation and dissemination of knowledge in support of the health and well-being of the people of Ohio and the global community”. The BSEGS major was designed as a highly team oriented, inter-professional major that graduates students able to engage in innovative, creative, professional, and impactful work in a diverse, inclusive, equitable, and ethical environment. These program goals have synergy with the mission, vision, and strategic plans of the COM and SHRS, which emphasize dedication to interprofessional education, diversity and inclusion, ethics and professionalism, and innovation. Student engaged in the major will immerse in coursework that adheres to these ideals, values and goals. For example, students in the major take common, core courses in Esports and game design, which facilitate interprofessional communication, respect and team collaboration throughout their first year. In addition, they engage in an interprofessional Capstone experience in which they learn how interprofessional teams and diversity of experience, background and thought can contribute to innovation and discovery.

For those students who select the Application of Games in Medicine and Health tract, courses align with the COM and SHRS missions of improving health of individuals and of populations. For example, students will engage in coursework designed to protect the health of the Esport athlete or recreational gamer through an understanding of principles of health promotion, fitness, and nutrition, as well as the health-related conditions they may experience (e.g. musculoskeletal injury; addiction, and increased risk of chronic disease). Furthermore, students in this tract will gain knowledge in the application of games as educational
pedagogy that support knowledge attainment and behavior change moving individuals toward optimal health outcomes. For example, the use of games may be used to promote fitness, reduce obesity, or encourage mindfulness for stress reduction in both individuals and populations. Gaming may augment current health management tools to further support achievement of treatment goals.

The Department of Human Sciences is home to several multidisciplinary programs in which faculty teach coursework on social behavior, health, wellness, and the consumer experience. The proposed major fits well with the mission of the department as well as ongoing research by several faculty members.

There are two majors in the Department of Human Sciences, in the College of Education and Human Ecology, which relate to the proposed Esports and Game Studies major: Exercise Science and Sport Industry, both of which are in the Kinesiology Program Area. Faculty in Exercise Science research problems related to exercise training and recovery in men and women, and interventions that can enhance performance. Dr. William Kraemer's research is especially germane as he examines nutritional interventions as an important tool for enhancing performance, health, and recovery. Furthermore his research extends from basic cellular studies examining muscular and endocrine effects of microgravity and pituitary cell function to hypertrophy from exercise training. Faculty in Sport Industry research topics in the sport industry and physical activities organizations. Dr. Brian Turner’s research is also germane to the proposed major as he examines organizational behavior, especially employee behavior in sports organizations and general research methods in sport management.

Computer Science and Engineering (CSE) mission is to prepare students for success in the tech industry and graduate education. Game development has been a key part of this, but we have loosely addressed the need. The increase in popularity of eSports and the needed computational resources and infrastratcuture to successfully carry out large scale data intensive tournaments is a growing tech field with lots of interesting CS-related problems.

VIII. Implementation Date

New courses for the first year of the major are currently being formally proposed to the appropriate units. Students will be admitted into the first year of the EGS
curriculum beginning in Autumn 2019. Annually thereafter new courses will be
developed and proposed to the various units until all courses have been
approved.

IX. Role of Departments

The key departments that will be hiring lecturers, clinical faculty, graduate
teaching assistants, and beginning in year 2, tenure track faculty include the
Department of Design (College of Arts & Sciences), Human Sciences (College
of Education & Human Ecology), Electrical and Computer Engineering (ECE –
College of Engineering), and the School of Health & Rehabilitation Sciences
(College of Medicine). As courses for the new major are developed and
submitted for approval during the 2019-20 academic year (after the approval of
the major, in accordance with Office of Academic Affairs protocol), the relevant
department(s) will be consulted and their approval required for each new
course. In addition, hiring and annual reviews for EGS faculty will include
oversight by the department appropriate to each faculty member’s area of
specialization.

The program costs outlined below will be borne by the Office of Academic
Affairs for the first two years. It is planned that newly enrolled students will
support the program for every following year.

X. Describe Major in Catalog Style

Major: Esports and Game Studies
Degree: Bachelor of Science
College: Arts & Sciences
Campus: Columbus

Use a systems approach to integrate knowledge and skills in the gaming and
eSports industries in order to support emerging technical needs and manage
business objectives in industry.
XI. Impact on Facilities, Support Services, and Faculty

New faculty will need to be hired for the new courses and increased load on current courses. Support services, such as academic advising for each of the 3 tracts will need to be hired. Computer lab facilities need to be provided for both the Department of Design and for the Department of Computer Science & Engineering.

Library resources are the same as current faculty involved in the program below use in their classes and research. Current key faculty CV’s are in Appendix B.

Current Faculty

<table>
<thead>
<tr>
<th>Name</th>
<th>Area of Expertise</th>
<th>Full/Part Time</th>
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</thead>
<tbody>
<tr>
<td>Amy Darragh</td>
<td>OT &amp; Rehabilitation Science, Serious games, virtual simulation training system focused on injury and illness prevention</td>
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<tr>
<td>Claire Bollinger</td>
<td>Public health, epidemiology, and health promotion</td>
<td>Full</td>
</tr>
<tr>
<td>Jimmy Onate</td>
<td>Athletic training, biomechanics and motor learning with particular expertise in sports performance</td>
<td>Full</td>
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<tr>
<td>Roger Crawfis</td>
<td>Game dev, computer science</td>
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</tr>
<tr>
<td>Matthew Boggus</td>
<td>Game dev, computer science</td>
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</tr>
<tr>
<td>Scott Mills</td>
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<tr>
<td>Naeem Shareef</td>
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<tr>
<td>Neil Kirby</td>
<td>Computer Science</td>
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<tr>
<td>Scott Swearingen</td>
<td>Game Design</td>
<td>Full</td>
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<tr>
<td>Kyoung Swearingen</td>
<td>Animation</td>
<td>Full</td>
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<tr>
<td>Maria Palazzi</td>
<td>Animation</td>
<td>Full</td>
</tr>
<tr>
<td>Matt Lewis</td>
<td>Emerging Technology</td>
<td>Full</td>
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<tr>
<td>Brian Turner</td>
<td>Organizational Behavior</td>
<td>Full</td>
</tr>
<tr>
<td>William Kraemer</td>
<td>Expertise in the biological, neurological, and physiological aspects of esports</td>
<td>Full</td>
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<tr>
<td>Name</td>
<td>Area of Expertise</td>
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<tr>
<td>Deborah Grzybowski</td>
<td>Esports, Curriculum design, High impact practices</td>
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<td>Elliot Bendoly</td>
<td>Information Technology and Psychology</td>
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<td>Ralph Greco</td>
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Proposed Additional Faculty

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<td>TT Faculty</td>
<td>Graphics</td>
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<td>TT Faculty</td>
<td>Game Dev</td>
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<td>TT Faculty</td>
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<tr>
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XII. Program Costs

Estimate total costs, over and above current levels of operations, associated with the new major during the next four years. Explain how the department/college plans to meet these costs.
The following chart outlines the costs per year of starting the EGS program on the Columbus campus beyond current expenditures for the first 6 years. These estimates are based on the following assumptions: no students will be admitted until Autumn 2019, when students will be admitted only into the first-year curriculum; the following year (2020-21), the first two years of the curriculum will be offered; and in 2021-22, the first three or possibly all four years of the curriculum will be offered if warranted by enrollments. Additionally, the departments will attempt to reduce costs by sharing faculty when possible. If for some reason the tracts are not enrolling the expected number of students in the second year of the program as expected, we will hold enrollment numbers at a maximum of 36.
### Table 1: Estimated Start-up Costs of EGS per year

<table>
<thead>
<tr>
<th>Year</th>
<th>Instruction</th>
<th>New TT Faculty PBA</th>
<th>Startup Funds</th>
<th>GTA PBA</th>
<th>Computer Hardware</th>
<th>Computer lab support</th>
<th>Software (per year)</th>
<th>Course Dev.</th>
<th>Advisor &amp; Tract Coordinator</th>
<th>Total Annual Expenses</th>
<th>Cumulative PBA</th>
<th>Total Annual &amp; PBA</th>
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<td>2023-24</td>
<td>$910,951</td>
<td>$430,000</td>
<td>$730,000</td>
<td>$-</td>
<td>$200,000</td>
<td>$111,000</td>
<td>$225,000</td>
<td>$-</td>
<td>$485,200</td>
<td>$3,583,743</td>
<td>$2,067,890</td>
<td>$5,221,633</td>
</tr>
<tr>
<td>2024-25</td>
<td>$925,118</td>
<td>$150,000</td>
<td>$350,000</td>
<td>$-</td>
<td>$111,000</td>
<td>$225,000</td>
<td>$-</td>
<td>$485,200</td>
<td>$2,771,909</td>
<td>$2,251,890</td>
<td>$2,251,890</td>
<td>$4,839,799</td>
</tr>
</tbody>
</table>

#### Cumulative Personnel and Facilities Costs

<table>
<thead>
<tr>
<th>Program Marketing &amp; Recruitment</th>
<th>UCAT - Teresa Johnson</th>
<th>Department of English To pay for a Lecturer for required ENGLISH 2463</th>
<th>Department of Psychology To pay for 2 Lecturers for required Psych 1100 &amp; 3310</th>
<th>Program Director ($200,000/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>All salaries include benefits</td>
<td>15% for 3 years</td>
<td>$240,000.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$3,400.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$72,750.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$150,000.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$1,200,000</td>
</tr>
</tbody>
</table>
The above costs will be met for the first two years by the Office of Academic Affairs. After that, the program is expected to fund itself primarily through tuition revenue (see chart, below).

The following chart shows a conservative break-even projection of enrollments necessary to make the program fiscally self-sustaining once all four years of the curriculum are offered. The program can begin to sustain itself beginning in year 3.

<table>
<thead>
<tr>
<th>Year of Program</th>
<th>No. of Students</th>
<th>Tuition Revenue*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>36*3 = 108</td>
<td>$1,158,408</td>
</tr>
<tr>
<td>2</td>
<td>36*6 = 216</td>
<td>$2,316,816</td>
</tr>
<tr>
<td>3</td>
<td>3<em>72+6</em>36 = 432</td>
<td>$4,633,632</td>
</tr>
<tr>
<td>4</td>
<td>6<em>72+6</em>36 = 648</td>
<td>$6,950,448</td>
</tr>
<tr>
<td>5</td>
<td>9<em>72+3</em>36 = 756</td>
<td>$8,108,856</td>
</tr>
<tr>
<td>6</td>
<td>12*72 = 864</td>
<td>$9,267,264</td>
</tr>
</tbody>
</table>

*Based on annual NFYS tuition for 2018-19 of $10,726 on the Columbus campus. State Share of Instruction (SSI) is not included here because that revenue will cover facilities and administrative costs.
Appendix A: Program Goals, Learning Outcomes, and Proficiencies
APPENDIX A: EGS Expected Goals, Outcomes, and Proficiencies

Program Goal A
Understand the scope and interconnections between Games and eSports professions and activities from the perspectives of design, development, deployment, management, and use.

Program Outcome 1
Identify the gaps and opportunities in which Games and eSports could be developed and applied in entertainment, health, education, and among different applications and purposes of games.

- Proficiency – Beginner: Articulate the distinctions, congruencies, and overlaps among different applications and purposes of games.
- Proficiency – Beginner: Articulate the distinctions, congruencies, and overlaps between Games and eSports.
- Proficiency – Beginner: Convey specific examples of applications of Games and eSports in the specific industry contexts of entertainment, health, education, among others.
- Proficiency – Beginner: Identify fundamental requirements of Game or eSports environments, with regards to user expectations and in the context of contemporary technologies.
- Proficiency – Intermediate: Identify the gaps and opportunities in which Games and eSports could be developed and applied in entertainment, health, education, and among different applications and purposes of games.
- Proficiency – Advanced: Evaluate the life-cycle of games throughout development, distribution, and use.

Program Outcome 2
Evaluate needs, interdependencies and solutions for effective communication and interaction among different domains of Games and eSports.

- Proficiency – Beginner: Outline the processes and key participants (stakeholders) involved from design to production, marketing and distribution, through usage and support.
- Proficiency – Intermediate: Evaluate the challenges in translating and balancing performance measures and goals across various stakeholders and activities.
- Proficiency – Intermediate: Analyze performance measures and/or goals throughout Games and eSports processes, products, events, and participants, including time and cost, innovation, market success and longevity, and social and health consequences.
- Proficiency – Advanced: Apply approaches to reconciling conflicting performance goals, and developing acceptable compromises across various stakeholders and activities.
Program Goal B
Understand and demonstrate professional behaviors, collaborative behavior in interdisciplinary and diverse team environments, principles of leadership, and self-development as they relate to specific domains of practice in Games and eSports.

Program Outcome 1
Demonstrate competence in and apply individual skills within a specific domain of practice in preparation for entry into relevant Game and eSports contexts (e.g., design, marketing, player presentation, health and wellness).

Proficiency – Beginner: Identify and appraise individual aptitudes and skills most beneficial to specific domains in Games and eSports.

Proficiency – Intermediate: Demonstrate the knowledge and skills necessary and/or required for entry-level professional employment.


Proficiency – Beginner: Demonstrate access and use of research and resources related to the professional standards and behaviors associated with the chosen profession.

Proficiency – Intermediate: Demonstrate appropriate professional boundaries and appropriate professional expression, deportment, and dress.

Proficiency – Intermediate: Demonstrate work behaviors that reflect an understanding of professional standards and code of ethics appropriate to the practice environment.

Proficiency – Advanced: Curate a portfolio that represents the breadth and depth of work, education, and/or products.

Proficiency – Beginner: Identify and describe the roles and responsibilities of professionals and consumers involved in specific domains of practice in Games and eSports.

Proficiency – Beginner: Explain the benefits, common dynamics and challenges of working in a team to develop innovations and evolve practice Games and eSports.

Proficiency – Intermediate: Exhibit respectful and effective professional behaviors in communications, collaboration and relationship building in team projects.

Proficiency – Intermediate: Recognize and describe the roles and contributions of other team members in effective collaboration and communication.

Proficiency – Intermediate: Explain one’s own professional and functional role as a contributor to a team, as well as common limitations therein.

Proficiency – Advanced: Evaluate and explain the means (principles and frameworks) by which one organizes collaborative projects to ensure shared goals and outcomes.

Proficiency – Advanced: Practice effective decision making, problem solving, conflict management, and adjust to team and individual task demands.
Communication

**Program Goal C**
Identify, interpret, and use oral, written, visual, and nonverbal communication skills that are effective in diverse contexts.

**Program Outcome 1**
Develop written communications effectively and appropriately to a diverse audience leveraging a range of written documentation modalities.
- **Proficiency – Beginner:** Recognize the most effective principles of good communications.
- **Proficiency – Intermediate:** Exhibit professional writing skills.
- **Proficiency – Advanced:** Synthesize content for use in written documentation.
- **Proficiency – Advanced:** Prepare professional documentation.

**Program Outcome 2**
Develop oral presentations effectively and appropriately to a diverse audience leveraging a range of oral presentation modalities.
- **Proficiency – Beginner:** Recognize the most effective principles of good communications.
- **Proficiency – Intermediate:** Exhibit professional presentation skills.
- **Proficiency – Advanced:** Prepare effective and appealing visual and oral presentations.
- **Proficiency – Advanced:** Synthesize content for use in presentation.

**Program Outcome 3**
Demonstrate approachability and confidence in communication with colleagues, consumers, and clients.
- **Proficiency – Beginner:** Listen and be responsive to communications of others.
- **Proficiency – Intermediate:** Deliver organized, effective, and appealing visual and oral presentations.
- **Proficiency – Advanced:** Leverage opportunities and strategies for adapting to the needs of a given audience.
Diversity, Inclusion, and Equity

Program Goal D
Embrace diversity, equity, and inclusion as critical to the quality, success, cultures, and reach of Games and eSports to attain the attitudes and practices needed to function effectively within, create and perpetuate a just, humane, and democratic society.

Program Outcome 1
Students will include multiple perspectives, cultures, and demographics across all aspects of Games and eSports.

Proficiency – Beginner: Articulate the importance of multiple perspectives, cultures, and demographics in game design, development, management, implementation, use, and competition.

Proficiency – Beginner: Appraise products and processes in Games and eSports to determine the representation of and impact on diverse stakeholder groups.

Proficiency – Intermediate: Integrate multiple perspectives, cultures, and demographics into game design, development, management, implementation, use, and competition.

Proficiency – Intermediate: Appraise the impact of diverse, inclusive, and equitable representation and perspectives on Games and eSports products and processes.

Proficiency – Advanced: Devise solutions to complex problems with products and processes by integrating multiple perspectives and demographics.

Program Outcome 2
Students will facilitate an equitable and inclusive environment that is respectful and welcoming to a diverse workforce and Games and eSports community.

Proficiency – Beginner: Articulate how to identify an inclusive and welcoming environment and community (online or in-person) for the Games and eSports community.

Proficiency – Intermediate: Advocate for equitable and inclusive workforce and community for the Games and eSports community.

Proficiency – Advanced: Devise approaches to become an activist for creation of an equitable and inclusive workforce and environment for the Games and eSports community.

Program Outcome 3
Students will analyze how games can be used to promote a diverse, inclusive, and equitable society.

Proficiency – Beginner: Articulate how diversity, inclusion, and equity objectives can inform design, development, performance, and management of Games and eSports people and processes, based on established and rigorously validated research findings.

Proficiency – Intermediate: Identify opportunities to use game design, development, performance, and management of Games and eSports to promote a diverse, inclusive, and equitable society.

Proficiency – Advanced: Analyze implementation strategies to use game design, development, performance, and management of Games and eSports to promote a diverse, inclusive, and equitable society.
Ethics and Responsibility

Program Goal E
Examine and appraise and execute ethical best practices in Games and eSports; including articulating and evaluating ethical dilemmas, solutions, responsibilities, and potential impacts on individual and social behavior in Games and eSports industries and cultures.

Program Outcome 1
Create, design, market or support games, events or engagements that are responsive to the sensitivities of, and potential impact on, all stakeholder groups and individuals.

Program Outcome 2
Integrate the needs of multiple stakeholders to ensure veracity, truth, and transparency in appropriate aspects of Games and eSports (e.g. personal data, cost, contracts, plagiarism, copyright, intellectual property, Trojan horse, players).

Program Outcome 3
Adhere to ethical best practices and legal expectations specific to roles in Games and eSports.

Proficiency – Beginner:
- Identify and apply the role of beneficence as a standard in Games and eSports (e.g. avoid harm to others; civility; noncoercive work environment; respect and fairness to others).
- Convey how beneficence, privacy and confidentiality factor into processes and decision-making across Games and eSports.
- Demonstrate approaches by which sufficiency in beneficence, privacy and confidentiality is evaluated across processes and decision-making in Games and eSports.
- Demonstrate approaches for monitoring and maintaining beneficence, privacy and confidentiality, in the deployment of Games and eSports.
- Evaluate the importance of maintaining privacy and confidentiality of users, user data, customers, and clients.

Proficiency – Intermediate:
- Explain the direct and indirect costs to key stakeholders in industry cases when veracity, truth and transparency were not sufficiently addressed or evaluated.
- Demonstrate approaches by which veracity, truth and transparency should be applied in Games and eSports.
- Demonstrate approaches for monitoring and maintaining veracity, truth and transparency in Games and eSports.

Proficiency – Advanced:
- Articulate legal regulations and frameworks for ethical best practices, which apply broadly across all roles and contexts in Games and eSports.
- Articulate legal regulations and frameworks for ethical best practices, specific to the focal professional area studied in Games and eSports.
- Demonstrate approaches to identifying breaches and risks of breaches across Games and eSports professions and processes.
- Demonstrate approaches for monitoring and maintaining legal adherence in Games and eSports.
Influence and Responsibility

Program Goal F
Identify, articulate, appraise, and analyze the impact and responsibility of Games and eSports, including contemporary and historical roles of games in society and implement strategies to minimize any negative impact.

Program Outcome 1
Articulate how Games and eSports impact human health and behavior, contemporary community standards, social justice, and social change and implement strategies to minimize negative impact.

Program Outcome 2
Outline the history and current state of formal research into social impacts of Games and eSports.

Proficiency – Beginner: Identify how Games and eSports can impact human health and behavior, contemporary community standards, social justice, and social change in a variety of contexts.

Proficiency – Beginner: Identify the historical and evolving nature of societal views of Games and eSports, such as generational differences and cultural biases in perspectives.

Proficiency – Intermediate: Analyze methods to minimize or mitigate any negative impact that Games and eSports may have on human health and behavior, contemporary community standards, social justice, and social change.

Proficiency – Intermediate: Analyze the extent to and manner in which Games and eSports influence society.

Proficiency – Advanced: Implement strategies in all aspects of Games and eSports to eliminate or minimize negative impacts on human health and behavior, contemporary community standards, social justice, and social change.

Proficiency – Beginner: Identify critical differences in how the level and type of engagement in Games and eSports are linked to positive and negative social, familial, educational, behavioral, and health outcomes.

Proficiency – Beginner: Explain how evidence is collected and used to assess the impact of various levels and types of engagement in Games and eSports, including common flaws in and risk associated with such assessment.

Proficiency – Intermediate: Appraise the quality and scope of the body of knowledge related to the impact of Games and eSports on social, educational, behavioral, and health outcomes.

Proficiency – Intermediate: Distinguish the best available and most relevant evidence from that which is less rigorous or applicable to a specific product or process.

Proficiency – Advanced: Integrate best available and most relevant evidence into project and process decision making and implementation.
Influence and Responsibility (continued)

Program Goal F: Identify, articulate, appraise, and analyze the impact and responsibility of Games and eSports, including contemporary and historical roles of games in society and implement strategies to minimize any negative impact.

Program Outcome 3: Articulate how human health and social justice objectives can inform design, development, performance, and management of Games and eSports people and processes, based on established and rigorously validated research findings.

- **Proficiency – Beginner:** Identify how human health and behavior, contemporary community standards, social justice, and social change impact Games and eSports.
- **Proficiency – Beginner:** Identify the historical and evolving nature of society, and how this influences Games and eSports.
- **Proficiency – Intermediate:** Analyze the extent to and manner in which society influences the Games and eSports industries.
- **Proficiency – Advanced:** Integrate knowledge of human health and behavior, contemporary community standards, social justice, and social change into all aspects of Games and eSports to eliminate or minimize negative impacts.

Program Outcome 4: Evaluate and apply current scientific, technological, and environmental innovations, evidence, and trends, and their impact on individuals, populations, products and processes in Games and eSports.

- **Proficiency – Beginner:** Demonstrate thorough understanding of scientific, technological, and environmental trends in the design and development of processes, products, and plans for individuals, populations, and industry.
- **Proficiency – Beginner:** Explain how Games and eSports can drive scientific discovery, technological advancement and innovation.
- **Proficiency – Intermediate:** Critically appraise the scientific, technological, and/or environmental research and trends related to Games and eSports.
- **Proficiency – Advanced:** Integrate evidence into professional decision-making about behaviors, processes, designs, and products.
Appendix B: Participating Faculty CV’s
ACADEMIC APPOINTMENTS

2016 to Present
Fisher College Distinguished Professor, Management Sciences
The Ohio State University, Fisher College of Business

2016 to Present
Associate Dean for Undergraduate Students and Programs
The Ohio State University, Fisher College of Business

2016
Translational Data Analytics Faculty-in-Residence, The Ohio State University

2014-2016
Full Professor, Management Sciences, The Ohio State University, Fisher College of Business

2011-2014
Area Coordinator, Information Systems and Operations Management
Emory University, Goizueta School of Business

2007-2014
Associate Professor, Information Systems and Operations Management
Caldwell Research Fellow, Emory University, Goizueta School of Business

2010
Visiting Researcher, IE Business School, Madrid

2001-2007
Assistant Professor, Decision & Info. Analysis, Emory University, Goizueta School of Business

AFFILIATED APPOINTMENTS

2015 to Present
International Institute for Analytics (IIA) Contributing Faculty Member

EDUCATION
Ph.D. Operations and Decision Technologies: Indiana University, Kelley School of Business, 2001
M.S. Operations and Decision Technologies: Indiana University, Kelley School of Business
B.A. Economics (Industrial/Developmental): Case Western Reserve University
B.S. Materials Engineering: Case Western Reserve University

PRE-ACADEMIC INDUSTRY EXPERIENCE
IMVP Researcher for the Center for Regional Economic Issues; Weatherhead School of Mgmt, CWRU; 1997, 1999
Research Assistant – Perception Imaging and Psychology Laboratory, Case Western Reserve University 1997
R&D Technician/Trainer for the Intel Corporation (Polymer Core Competency); Chandler, AZ; 1996-1997
Assistant Editor of ASM International’s Materials Phase Transformation Series; Lucerne, Switzerland; 1994

CURRENT RESEARCH INTERESTS
The interface between Operations, IT and Psychology (group and individual)
- Operational Feedback - Visualization, Complexity/Uncertainty – Effects on resource usage behavior and tactics
- Operational Coordination - Collaboration and Group Dynamics – Impacts on problem solving, NPD and IT projects
- Operational IT-Driven Enablement - Ops/Strat/IT Alignment – Implications for buy-in, efficiency and innovation

h-index: 29 (Scopus) 25 (ISI) 36 (Google)  i-10: 44 (Scopus) 38 (ISI) 53 (Google)  RGscore: 37.2 (1960 Followers)
56 articles: JOM(11) POM(9) JAP(2) ISR(1) MS(1) MISQ(1) JBL(2) JSCM(2) DSJ(6) IJOPM(5) EJOR(5) DSS(2) IM(2), Other(8)
ORCID: 0000-0002-0158-8403    Scopus Author ID: 6602755760    ResearcherID: D-7865-2015
ARTICLES IN REFEREED JOURNALS (last 10 years)


Career Totals by Type (MS / JOM / POM / ISR / MISQ / JAP / JBL, Other) Lab(11,4) 2ndry(4,3) Survey(3,11) Model(1,6) Theory(6,5)

EDITED TEXTBOOKS AND RESEARCH COMPILATIONS


RECENT RESEARCH PRESENTATIONS (last 5 years)


S. Paul, N. Craig, E. Bendoly. 2018. “Choice and diversification decisions under demand and supply uncertainty”. Presented at the following: {1} INFORMS meeting, Phoenix, AS, {2} Decision Sciences Institute meeting, Chicago, IL, {3} 8th International Conference on Operations and Supply Chain Management, Cranfield, UK.


E. Bendoly. 2017. “Anticipating NPD Speed Traps: An Application of the OUtCoMES Cycle”, Center for Operational Excellence Summit, The Ohio State University, Columbus, OH

E. Bendoly. 2016. Eminent Scholar talk - “Decision-maker Reactions to Visualized Variance II: A Study of Longitudinal Risk Depiction”, Iowa State University, Ames, IA


RESEARCH GRANTS and HONORS (last 10 years)

- IJOPM’s 2017 Outstanding Paper Award Winner [“Different departments, different drivers: asymmetry in antecedents and outcomes of voluntary knowledge exchange between sales and production functions” 37(8)].
- Fisher College of Business Distinguished Professorship, The Ohio State University 2016-19
- Outstanding Senior Editor, Production and Operations Management journal for 2015-16
- 2015 Operations Management Distinguished Scholar – Awarded by the OM Division of the Academy of Management
- Fall 2015 Small Grant Award recipient – Fisher College of Business, The Ohio State University
- Best Associate Editor for the Journal of Operations Management for 2013-14
- Fall 2014 (Academy of Management) – Nominated for Best published JOM paper of 2013 [“Real-time feedback and booking behavior in the hospitality industry: Moderating the balance between imperfect judgment and imperfect prescription”, 31(1)]
- Invited research collaborator with the Erasmus Center for Behavioral Operations Management, 2013
- 2014, 2015 Window's Azure Academic Grant (MS Corp. estimated total market value of Azure access: USD $77,400)
- 2013 Window's Azure Academic Grant (MS Corp. estimated total market value of Azure access: USD $133,200)
- Spring 2012-2013 Ad hoc Research Grant recipient
- Winter 2011-2012 Ad hoc Research Grant recipient
- Fall 2009-2011 Caldwell Research Fellow - Goizueta Business School, Emory University
- Fall 2009 (Academy of Management) - Best published JOM paper of 2008 [“Understanding behavioral sources of process variation following enterprise system deployment”, 26(1)]
TEACHING and PEDAGOGY

Teaching Awards

2014 Crystal Apple Teaching Award – Emory University, Goizueta Business School
Emory Residents Hall Authority – One of 8 to receive the award, among 600 nominated

2000 William Panschar Associate Instructor Teaching Award – Indiana University, KSB
A school-wide award for excellence in innovative teaching. Only one award is given each year.

Coursework Taught/Developed

Data Analysis and Visualization (The Ohio State University)
Spring 2015+ - Instructor and Developer [Junior-Lvl Undergraduates; 1st / 2nd year FT MBAs / Evening MBAs]

Doctoral Seminar in Scholarship Interfaces with Industry and Pedagogy (The Ohio State University)
Fall 2015 - Instructor and Developer [1st and 2nd year PhD students]

Doctoral Seminar in Behavioral Operations (The Ohio State University)
Fall 2014 - Instructor and Developer [2nd year PhD students]

Data Analytics and Visualization (Emory University)
Spring/Fall 2007-2013 – Instructor and Developer [Predominantly 2nd year FT MBAs / Evening MBAs]

Data Analytics and Visualization (Emory University)
Spring/Fall/Maymester 2006-2014 – Instructor and Developer [Jnr / Snr level business undergraduates]

Global Supply Chain Management (Emory University)
Spring 2003 – Instructor and Developer [Predominantly 2nd year MBAs]

Introduction to Operations Management (Emory University)
Fall 2001 – Instructor (Manufacturing Sector Focus) [Junior / Senior level business undergraduates]
Fall 2002-07 – Instructor and Developer (Service Sector Focus) [Jnr / Snr level business undergraduates]

Enterprise Resource Planning Tools – ABAP/4 Methods (Indiana University)
Spring 2001, Fall 2000 – Co-Instructor [Senior level business undergraduates]

Introduction to Data Mining (Indiana University)
Spring 2000 – Invited Lecturer [Predominantly 2nd year MBAs]

Enterprise Operations Planning – ERP & the E-Business Supply Chain (Indiana University)
Spring 2000, Fall 1999 – Instructor [Senior level business undergraduates]
Spring 1999 – Teaching & Course Development Assistant [Senior level business undergraduates]

Other Teaching Activities:
2002 Spring Lead Week (Emory) – Instructor for Inventory Management section of Operations module
2007 Spring Lead Week (Emory) – Joint Operations and Strategy module
2010 Structured Problem Solving (Emory) – part of Management Practice module of MBA program
2012, 2013 Goizueta Business Institute (Emory) – Operations course to non-business majors

Graduate Student Committee Service
Joycelyn Streator - Emory University – PhD Information Systems – Graduation 2010
Brett Massimino – Ohio State – PhD Management Sciences - Graduation 2014
Luv Sharma – Ohio State – PhD Management Sciences - Graduation 2016
Daniel Taylor – Ohio State – PhD Logistics – Graduation 2018
Somak Paul – Ohio State – PhD Management Sciences – Graduation 2019
Amy Rowntree Darragh, PhD, OTR/L, FAOTA

Contact Information: Division of Occupational Therapy
School of Health and Rehabilitation Sciences
The Ohio State University
453 West 10th Avenue
406 Atwell Hall
Columbus, Ohio, 43210
Phone: 614-293-3760
Fax: 614-292-0210
Email: darragh.6@osu.edu

CURRENT ACADEMIC POSITION
06/2015 - present  Associate Professor, Division of Occupational Therapy, School of Health and Rehabilitation Sciences, The Ohio State University, Columbus, OH.
09/2012 – present  Affiliate Faculty, Center for Injury Research and Policy, The Research Institute at Nationwide Children's Hospital. Columbus, OH

ADMINISTRATIVE APPOINTMENT
11/2015 - present  Division Director, Occupational Therapy, School of Health and Rehabilitation Sciences, The Ohio State University, Columbus, OH
07/2014 - 11/2015  Interim Division Director, Occupational Therapy, School of Health and Rehabilitation Sciences, The Ohio State University, Columbus, OH

PREVIOUS ACADEMIC APPOINTMENTS
07/2008 - 06/2015  Assistant Professor, Division of Occupational Therapy, School of Health and Rehabilitation Sciences, The Ohio State University, Columbus, OH
07/2006 - 06/2008  Assistant Professor, Department of Occupational Therapy, University of Wisconsin-Milwaukee WI
07/2000-06/2006  Assistant Professor, Program in Occupational Therapy, Sacred Heart University, Fairfield, CT
09/1995 – 06/2000  Research Associate, Dept of Environmental Health, Colorado State University, Fort Collins, CO
02/1990 – 08/1995  Research Associate, Dept of Occupational Therapy, Colorado State University, Fort Collins, CO

EDUCATION
2001  PhD, Department of Environmental Health Epidemiology, Colorado State University
1995  MS, Department of Occupational Therapy, Colorado State University
1988  BA, Barnard College, Columbia University

LICENSURE & CERTIFICATION
10/2008 – present  Occupational Therapist: Ohio Occupational Therapy, Physical Therapy, and Athletic Trainers Board

COURSES TAUGHT (selected)
*indicates courses taught currently

OCCTHER 6110 Occupational Therapy Foundations and Theory
OCCTHER 6210 Neuromusculoskeletal and Sensory Function
OCCTHER 6730 Research Methods
OCCTHER 6740 Health Planning for Individuals and Communities*
OCCTHER 7270 Occupational Performance, Environment and Context: Assessment and Intervention*
OCCTHER 7710 Capstone Project I*
OCCTHER 7720 Capstone Project II*
OCCTHER 7730 Capstone Project III*
OCCTHER7620 Occupational Therapy Research Specialization
HTHRHSC 7910 Evidence Based Practice II: Critical Analysis of Intervention Research and Systematic Review
HTHRHSC 7150 Introduction to Health & Rehabilitation Science II
HTHRHSC 8998 PhD Research Practicum*
HTHRHSC 8999 PhD Dissertation*
HTHRHSC 8289 PhD Teaching Practicum*
AWARDS AND FORMAL RECOGNITION FOR TEACHING

2015  Emerging Service Learning Award, Office of Outreach and Engagement, OSU
2014  School of Health and Rehabilitation Sciences Teaching Award, OSU

PUBLICATIONS

Journal Articles (Peer Reviewed)


**Journal Articles (Editor-Reviewed)**


**List of Published Journal Articles in MyBibliography:**


**Abstracts and Short Entries**


Papers in Proceedings


Chapters in Edited Books


Bulletins, Tech Reports, Fact Sheets


PRESENTATIONS

Invited Presentations

National


Other Presentations

International


National


10. Future of the Profession Town Hall Meeting. (April, 2018). Served a panelist for a moderated discussion with AOTA members about the OTD educational requirements being put forth by ACOTE®. American Occupational Therapy Association Annual Conference and Expo, April19 – 22, 2018 Salt Lake City Utah.


**CURRENT and RECENTLY COMPLETED RESEARCH FUNDING**

**Funded Research**


4. **09/27/2012-02/28/2019. Multi-site RCT of Pediatric Constraint-Induced Movement Therapy (CIMT), NIH-NICHD (3,741,545) Research Grant.** Grant/Contract Number: 5R01HD068345-03 PI: Ramey, DeLuca, Stevenson Site PI: Darragh, AR

**AWARDS FOR RESEARCH, SCHOLARLY, CREATIVE WORK**

2013 Fellow, American Occupational Therapy Association.
2012 Bernice Owen Award for Research in Safe Patient Handling, VISN 8 Patient Safety Center of Inquiry, VA, Tampa, FL
2009 Virginia Scardina Lectureship Award, Ohio Occupational Therapy Association, Ohio Occupational Therapy Association, OH
Deborah M. Grzybowski, Ph.D.
Associate Professor Clinical
Department of Engineering Education
Department of Chemical and Biomolecular Engineering
The Ohio State University, 244 Hitchcock Hall, 2070 Neil Ave., Columbus, Ohio 43210-1057
Telephone: 614-292-1563, Fax: 614-247-6255, E-mail: Grzybowski.3@osu.edu

Short Bio
Dr. Deborah Grzybowski is an Associate Professor of Practice in the Department of Engineering Education at The Ohio State University. Deb is Co-Director of the curriculum development of the Game Studies and Esports undergraduate major. This major is a collaboration of 5 colleges including Arts & Sciences, Education and Human Ecology, Engineering, Fisher College of Business, and Medicine. The comprehensive major will provide students to fill roles in industry ranging from game design and creation, production of gaming events including streaming and broadcasting, and coaching, rehabilitation, and training of esports athletes. Deb has been the Advisor of the Esports Initiative student organization since its creation in 2011.

Her engineering education research focuses on making engineering accessible to all students, including under-represented and under-resourced students, through the use of art-infused curriculum and 3-D models. Her role has given her many opportunities to develop curriculum both for K-12 and for higher education, including bio-engineering curriculum and associated models for the State School for the Blind. She holds degrees in Chemical and Biomolecular Engineering (B.S. & M.S.) and a Ph.D. in Biomedical Engineering.

Education
Ph.D. Biomedical Engineering, 2000. The Ohio State University, Columbus, OH.
M.S. Chemical Engineering, 1982. The Ohio State University, Columbus, OH.
B.S. Chemical Engineering, 1979. The Ohio State University, Columbus, OH.

Employment History
Associate Professor Clinical, Department of Engineering Education, The Ohio State University, Columbus, OH (2016-present).
Associate Professor Clinical, Department of Chemical and Biomolecular Engineering (CBE), The Ohio State University, Columbus, OH (2012-present).
Scientific Advisor, Executive Board of Directors member, The Ohio Lions Eye Research Foundation, Columbus, OH (2011-present).
Assistant Professor Clinical, Engineering Education Innovation Center, College of Engineering, The Ohio State University, Columbus, OH (2012-2015).
Assistant Professor, The Department of Ophthalmology, The Ohio State University, College of Medicine, Columbus, OH (2003-2012).
Director Ohio Lions Eye Research Facility, The Department of Ophthalmology, The Ohio State University, College of Medicine, Columbus, OH (2003-2012).
Research Scientist, The Department of Ophthalmology, The Ohio State University, College of Medicine, Columbus, OH (2002-2003).
Post-Doctoral Fellow, The Department of Biomedical Engineering, The Ohio State University, College of Engineering, Columbus, OH (2000-2002).
French Fellow, Department of Engineering Graphics, The Ohio State University, College of Engineering, Columbus, OH (1992-1999).
Principal Research Scientist, Battelle Memorial Institute, Columbus, OH (1982-1992).

Courses Taught at the Ohio State University (OSU), Columbus, Ohio

1. TEK 8, Translating Engineering to K-12 (ENGR 4850S, ENGR 6850S)
2. Fundamentals of Engineering II for Honors – Robot Option (ENGR 1282.01H)
3. Fundamentals of Engineering II for Honors – Nanotechnology Option (Course Director) (ENGR 1282.02H)
4. Bio-Engineering for students with Visual Impairments I (Developed Course) (EDUTL 5992)
5. Fundamentals of Engineering I for Honors (ENGR 1281.01H)
6. Bio-Engineering for students with Visual Impairments II (Developed Course) (EDUTL 5992)
7. Engineering Fundamental and Laboratory I for Honors (ENGR 191)
8. Engineering Fundamental and Laboratory II for Honors (ENGR 192)
9. Introduction to Engineering I (ENGR 181)
10. Graphics 167 MATLAB (ENGR 167)
11. Engineering Fundamental and Laboratory III for Honors – Robot Option (ENGR 193, previously ENGR 168)
12. Engineering Fundamental and Laboratory III for Honors - Nanotechnology Option (ENGR 193A)

Graduate student advising:

- PhD students advised: 3 graduated (2 BME, 1 CBE)
- Masters students advised: 2 graduated (2 BME)
- Post-Doctoral students advised: 2
- Medical Student research programs advised: 52
- Ophthalmology Resident student research programs advised: 26
- Undergraduate Research programs advised: 24

Graduate Student Committees:

- PhD students: 1 graduated (CEGE), 1 current (CEGE)
- Masters students: 2 graduated (CEGE)
- Undergrad Honors Thesis: 1 graduated (BME)

Publications (Summary):

- Peer-reviewed journal articles: 19
- Proceedings and abstracts: 115 (115 peer-reviewed)
- Chapters in edited books: 2
- Bulletins, tech reports, and fact sheets: 2
- Invited speaker at workshops, conferences, and symposiums: 26

Selected recent publications (Engineering education related):


CV for Deborah M. Grzybowski, 2019, page 2

Honors and Awards
- College of Engineering Dean’s Award for Distinguished Outreach Achievements (2019)
- Outstanding Service to the Department of Engineering Education Award (2018)
- Recipient Sphinx/Mortar Board Faculty Award (2014)
- STEP Faculty Member (2013 – present)
- Recipient of Faculty Award for Outstanding Commitment to Student Education, Panhellenic Association (2012)
- Member Executive Board, Scientific Advisor, The Ohio Lions Eye Research Foundation (2011 – present)
- ISTAART ICAD Travel Fellowship (2008)
- Society for Research in Hydrocephalus and Spinal Bifida Travel Award (2008)
- Intracranial Hypertension Research Foundation Scientific Advisory Panel (2006 – present)
- The BrainChild Steering Committee (2006 – present)
- Recipient Landacre Faculty Teaching Award (2005)
- Association for Research in Vision and Ophthalmology Travel Award (2004)
- CIC Women in Science and Engineering Travel Grant (1998)
- Graduate Fellow; Tau Beta Pi; Sigma Delta Epsilon; Texnikoi; Outstanding Senior in Chemical Engineering Award, The American Institute of Chemists; Outstanding Freshman Award, Outstanding Freshman Chemistry Award, CRC. (1976-1982)

Panel Member
- NSF Biomedical Engineering Panel 2013 & 2014 NSF Graduate Research Fellowship Program (GRFP)
- NIH Neurotransporters, Receptors, Channels, and Calcium Signaling Study Section; 2/2011
Selected Sponsored Research (Approximate Total Funding Received $1,290,000)

6. “1282.02H OSU Library Course Enhancement Grant,” Principal Investigator, $2,000; 2012-2013.

Inter-institutional collaborations
- Manchester University (co-author)
- Brown University (co-author)
- Duke University (co-author, co-PI)
- ETH Zurich (co-author)
Roger Crawfis
Associate Professor
Computer Science and Engineering Department
The Ohio State University
crawfis.3@osu.edu

Short Bio
Roger Crawfis is CEO for Games That Move You, Pbc. and an Associate Professor with tenure at The Ohio State University in the Department of Computer Science and Engineering. He holds adjunct positions in the Biomedical Engineering Department, and the Advanced Computing Center for Art and Design (ACCAD). Dr. Crawfis received his BS degree in computer science, as well as a BS degree in Applied Mathematics from Purdue University in 1984. He received his MS and PhD in Computer Science from the University of California, Davis in 1989 and 1995, respectively. From 1984 to 1996, he was a researcher at the Lawrence Livermore National Laboratories, where he developed complex simulation codes and associated visualizations. He later led the research efforts in scientific visualization, with over $2 million in funding. His research interests lie in the areas of computer graphics, game technologies, serious games, games for health, real-time rendering, scientific visualization and medical imaging. He serves or has previously served on the Editorial Board for the IEEE Transactions on Visualization and Computer Graphics, the IEEE Visualization conference series, the Eurographics/ACM visualization conference series and many smaller workshops. Roger has authored over 100 scientific publications, and is actively involved in the graphics community. He is a member of the IEEE Computer Society. Through his own consulting company, Crawfis Software, LLC, Dr. Crawfis also regularly consults on legal cases including patents and copyrights, general programming issues, and .NET technologies.

Education:
Ph.D. Computer Science. September 1995, University of California, Davis, CA.
M.S. Computer Science. June 1989, University of California, Davis, CA.
B.S. Computer Science. May 1984, Purdue University, West Lafayette, IN.
B.S. Applied Mathematics. May 1984, Purdue University, West Lafayette, IN.

Professional Experience:
February 2015 – present: CEO, Games That Move You, PBC.
September 2001 – present, Associate Professor, The Ohio State University.
November 2014 – present: CTO, Games That Move You, PBC.
March 2014 – present: President and Founder, Crawfis Software, LLC.
June 2012 – August 2012, Electronic Arts, Inc. NBA Live product
Adjunct Professor, The Advanced Computing Center for the Arts and Design (ACCAD), Sept. 1997 – present.
December 2004 – 2011, Chief Architect, VISION platform, DSCI, Inc.
Adjunct Graduate Faculty, Biomedical Engineering, The Ohio State University, September 2001 – present.
May 1983 - June 1984: Research Assistant, Purdue University.

Publications
Books

Chapters in Edited Books

5. Huang, Jian, Roger Crawfis, *Adaptively Represented Complete Distance Fields*, in Geometric Modelling for Scientific Visualization, Guido Brunnet, Bernd Hamann, Heinrich Mueller eds., Springer


**Bulletins and Technical Reports**


22. Ming Jiang, Naeem Shareef, Caixia Zhang, Roger Crawfis, Raghu Machiraju and Han-Wei Shen, "Visualization


Peer Reviewed Journal Articles

29. Jesse Fox, Ph.D.; Jessica McKnight, M.A.; Yilu Sun, M.S.; David Maung, Ph.D.; Roger Crawfis, Ph.D Using a Serious Game to Communicate Risk and Minimize Psychological Distance Regarding Environmental Pollution. Computers in Human Behavior (submitted).

30. Alexandra Borstad; Roger Crawfis, PhD; Kala Phillips, MS; Linda Pax Lowes, PhD; Lise Worthen-Chaudhari, MFA; David Maung, MS; Ryan McPherson, PhD; Amelia Siles, MS, DPT; Lynne V Gauthier, PhD; “In-home delivery of constraint induced movement therapy via virtual reality gaming”, in Journal of Patient-Centered Research and Reviews.

31. Alexandra Borstad; Roger Crawfis, PhD; Kala Phillips, MS; Linda Pax Lowes, PhD; Lise Worthen-Chaudhari, MFA; David Maung, MS; Ryan McPherson, PhD; Amelia Siles, MS, DPT; Lynne V Gauthier, PhD; “In-home delivery of constraint induced movement therapy via virtual reality gaming is safe and feasible: a pilot study”, in Archives of Physical Medicine and Rehabilitation.


Reviews and Abstracts

44. Jiabin Shen PhD, Jennifer Lundine PhD, Jonathan Groner MD, Keith Yeates PhD, Roger Crawfis, PhD, En-Ju D. Lin PhD, Joseph Rausch, PhD, H. Gerry Taylor, PhD. *A pilot RCT on the application of virtual reality to rehabilitation of executive functions among children with TBI*, American Psychological Association Technology, Mind & Society Conference 2019

45. Jiabin Shen PhD, Jennifer Lundine PhD, Jonathan Groner MD, Keith O. Yeates PhD, Roger Crawfis, PhD, En-Ju D. Lin PhD, Henry Xiang PhD. *Virtual Reality as a Tertiary Prevention Strategy for Reducing Executive Function Impairment Following Pediatric TBI: A Pilot Study* 2019 Society of Pediatric Psychology Annual Conference (SPPAC)


**Creative Works**

**Patents**


**Software**

3. Recovery Rapids – Commercial product of Games That Move You that offers game-based rehabilitation, exercise and customized therapy.

4. Canyon Run – A procedural content generation of a river for gamified rehab.


6. Tornado Data set generator – A simple C function to generate vector fields used for comparison in the visualization and flow visualization communities. Open-sourced at www.cse.ohio-state.edu/~crawfis/Data/Tornado.


**Films / Videos**

8. *Visualization Research for Global Climate Modeling*, Lawrence Livermore National Laboratory CS-5644, 8:29 min, silent, 2-12-92.
10. *Global Climate Visualization*, NICOGRAPH ‘92 Film and Video Show (Japan), 5:25 min, music and narration, 8-28-92.
11. *Texture Splats for 3-D Vector and Scalar Field Visualization*, Lawrence Livermore National Laboratory, 5:28 min, silent, 3-29-93.
12. *New Techniques in 3D Scalar and Vector Field Visualization*, Lawrence Livermore National Laboratory, 5:00 min, silent, 8-23-93.

**Cover Images**
16. Back Cover Image, Proceedings of Visualization ‘93
17. Cover Image, Proceedings of Visualization ‘93

**Prizes and Awards**
- IEEE Visualization 25 year Test of Time award, 2018.
- Best paper award for Applying Formal Picture Languages to Procedural Content Generation, in (CGAMES), 2015
- Moon Rush game demo. People’s Choice award. Games for Change, SpaceX competition, 2014
- Best paper award for Optimal Cover Placement against Static Enemy Positions, in FDG 2013
- Best paper nomination for Procedural Textures Using Tilings With Perlin Noise in CGAMES 2012
  - Best paper award for *Effective Texture Models for Three Dimensional Flow Visualization*, SCCG 2012.
  - Best paper award for *Volume Interval Segmentation and Rendering* at the IEEE Volume Visualization 2004 Workshop.
  - Best panel award for the panel *Do I Really See a Bone?* at the IEEE Visualization 2003 conference.
- 2000 College of Engineering Lumley Award.
- 1999 College of Engineering Annual Research Accomplishment Award
- Best panel award for *Terascale Visualization: Approaches, Pitfalls, and Issues* at the IEEE Visualization ’97 conference.
- Best paper award for *An Anti-Aliasing Technique for Splatting* at the IEEE Visualization ’97 conference.
- Best paper award for *Texture Splatting for 3D Vector and Scalar Field Visualization* at the IEEE Visualization ’93 conference.
- Grand Prix in the category of Scientific Visualization for the video *Global Climate Visualization* at the NICOGRAPH ’92 conference.
Matthew J. Boggus, Ph.D.
Dept. of Computer Science and Engineering
395 Dreese Labs
2015 Neil Avenue
Columbus, Ohio 43210
(614)-247-7338
boggus.2@osu.edu

Interests: Computer Science education and pedagogy, computer game development, computer graphics (modeling, animation, illumination, and rendering), procedural world creation and evaluation, automated and computer assisted level design, human computer interaction, artificial intelligence.

Education:

The Ohio State University

Hiram College

Teaching Experience:

Senior Lecturer                         Fall 2012 – present
CSE 1223 Instructor
CSE 2451 Instructor and Course Material Developer
CSE 3541/5541 Instructor, Course Developer, and Course Coordinator
CSE 3902 Instructor, Course Developer, and Course Coordinator
CSE 5912 Instructor
The Ohio State University, Department of Computer Science and Engineering

- Independently design and develop all content (lectures, homework, labs, and exams) for an upper level undergraduate course: “Computer Game and Animation Techniques”.
- Coordinate with other faculty in design and development of content for a junior project course: “Project: Design, Development, and Documentation of Interactive Systems”.
- Instruct 3-4 classes (approximately 30-45 students each) each semester.
- Mentor and train new graders.
- Maintain contact with students via office hours, email contact, and Carmen.
- Continue professional development through research on effective teaching and course design methodology.
- Create reference materials for CSE 3541 and CSE 3902 as part of the CSE Department’s ABET accreditation review.
- Participate in the CSE Curriculum and Undergraduate Studies Committees.
- Collaborate with a diverse group of faculty and staff across multiple departments in development of a new University program on Game Design and eSports.
- Attend University workshops and events on a broad amount of topics, including teaching processes, mental health and wellness, and diversity and inclusion.
- Assist in building of local community and business opportunities in game design and development, such as by promotion of events like GDEX, the annual game developers expo held in Columbus.
- Maintain mentoring relationships with alumni of the CSE Computer Graphics and Game Design Specialization.
Visiting Instructor      Spring 2012 – Summer 2012
CSCI 356 Instructor and Course Coordinator – Visualization and Interactive Applications
CSCI 150 and 151 Lab Instructor – Principles of Computer Science I, II
Oberlin College & Conservatory, Computer Science Department
  • Independently design and develop all content (lectures, homework, labs, and exams) for an upper level undergraduate course: “Visualization and Interactive Applications”.
  • Lecture and manage classes for approximately twenty students in the new course.
  • Run two lab sections (approximately twenty five students each) on introductory computer science topics including loop iteration, methods, and object oriented programming.
  • Run two lab sections (approximately fifteen students each) on data structures topics including doubly linked lists using generics, AVL trees, and graphs.
  • Mentor and train new lab helpers.
  • Hold office hours and respond to student questions via email and Blackboard.

Teaching Assistant
CSE 101 Instructor – Computer Assisted Problem Solving      Fall 2009 – Fall 2011
CSE 200 Lab Instructor – Computer Assisted Problem Solving for Business      Summer 2009
The Ohio State University, Department of Computer Science and Engineering
  • Lecture classes and run in-class activities for approximately forty students on topics such as binary searches in database tables, calculating compound interest, and Boolean logic.
  • Run lab activities including setting up a spreadsheet for yearly budgeting and introductions to Excel formula writing and Access tables, queries, forms, and reports.
  • Grade homeworks, labs, projects, and exams.
  • Answer student questions via email and Carmen.
  • Coordinate makeup assignments with students and teaching assistants.
  • Train lab consultants in methods to assist students in lab and grading processes.
  • Train new instructors in classroom and lab management, grading, and addressing student concerns and questions.
  • Assist in development and review of course materials including homework, labs, exams, projects, and lecture notes.

Computer Graphics Junior Project Lead Course Designer      Summer 2009 – Fall 2011
The Ohio State University, Department of Computer Science and Engineering
  • Responsible for selecting reading and reference materials, programming language and toolsets, and class format.
  • Coordinate with faculty designing other junior project courses to establish standard learning objectives and outcomes such as maturity in programming.
  • Develop course materials including the syllabus, schedule, project guidelines, and software documentation.
  • Attend Ohio State University events on teaching such as The Academy of Teaching: Fourth Annual Mini–Conference on Teaching in Fall 2010.

Preparing Future Faculty Fellow      Fall 2010 – Spring 2011
The Ohio State University, Graduate School
  • Participated in peer discussions and workshops with thirty OSU graduate students in multiple disciplines on preparing for a career in academia.
  • Attended the Kenyon faculty panel on faculty roles and responsibilities: teaching at undergraduate institutions.
  • Attended a Denison faculty conference on integrating research into teaching.
  • Attended the OSU University Center for the Advancement of Teaching (UCAT) Course Design Institute (Winter 2011) and worked on development of a computer game project course in addition to reviewing new and redesigned courses by faculty and graduate students.
  • Mentored by Dr. Joan Krone of Denison University.
Teaching Assistant                  Fall 2007 – Spring 2009
CSE 221 Instructor – Software Component Engineering
The Ohio State University, Department of Computer Science and Engineering
• Lectured classes and ran in-class activities for forty students on topics such as arrays, linked lists, and binary trees.
• Ran lab activities on topics including debugging, encryption, and file input and output.
• Graded homework and exams.
• Trained graders in working with students in lab and grading activity worksheets.
• Mentored new instructors by giving teaching advice and performing teaching observations.
• Assisted in writing and review of exams.

Writing Assistant                  Fall 2003 – Spring 2006
Hiram College Writing Center
• Proofread and performed peer review of undergraduate level academic papers in many different fields of study including the sciences, social sciences, arts, and humanities.
• Mentored new Writing Assistants by demonstrating peer reviews, discussing the peer review process, and observing and providing feedback on their peer reviews.

Professional Activities and Service:

Columbus Area Boardgaming Society – Board of Directors – 2018-current
Member: ACM

Graduate representative on Faculty Meetings committee (2009)

Graduate student panel member for prospective graduate student visits


Reviewer, International Symposium on Visual Computing (ISVC) 2011
Reviewer, Computer Animation and Social Agents (CASA) 2007
Reviewer, Computer Graphics International (CGI) 2007

Guest Lectures: Analysis of Algorithms, Intermediate Studies in Computer and Information Science: Computer Graphics (Procedural World & Data Creation), Elementary Computer Programming, Denison University Faculty and Student (FaSt) talk

Awards and Honors:

2017 – Nominated for Provost’s Award for Distinguished Teaching by a Lecturer
2016 – CSE Department Outstanding Teaching Award
2013 – Microsoft Imagine Cup Kinect Course Award
2010 – Upsilon Pi Epsilon honor society
2006 – Computer Science Outstanding Senior Award
B.A. Magna cum laude and Computer Science departmental honors
BRIAN ALLEN TURNER, PH.D.

Associate Professor • Sport Management • The Ohio State University

College of Education & Human Ecology • Department of Human Sciences
A250 PAES Building • 305 Annie & John Glenn Ave. • Columbus, OH 43210
Work: 614-247-8374 • Cell: 614-921-8585
Email: turner.409@osu.edu
Website: u.osu.edu/turner.409

EDUCATION


Master of Education in Physical Education, Tarleton State University, Stephenville, Texas, August, 1997.


RESEARCH INTERESTS

My primary research focus is in the general area of Organizational Behavior. My primary interest can be broken into two separate foci: 1) employee behavior in sport organizations; and 2) how marketing practices affect both sport organizations and consumers. An ancillary area touches on an area that affects a major portion of all research conducted in Sport Management – survey methods.

AWARDS

Distinguished Sport Management Educator Award, North American Society for Sport Management, 2017

Awarded to recognize exceptional contributions to teaching and learning. The award signifies (a) distinction in classroom, and/or field, and/or on-line teaching; (b) excellence in pedagogical innovations in teaching methods, and/or course design, and/or curricular design, and/or assessment; (c) sustained commitment to the improvement and quality of teaching and learning in the sport management disciplines; and (d) sustained commitment...
Distinguished Teaching Award, College of Education and Human Ecology, 2017

Outstanding Article, Journal of Issues in Intercollegiate Athletics, 2015

Runner-Up, Outstanding Article, Journal of Issues in Intercollegiate Athletics, 2014

Research Fellow, North American Society for Sport Management, 2007
Awarded to recognize NASSM’s scholars by honoring their achievement in sport-related scholarship disseminated through NASSM. The Research Fellow designation is intended to: (a) be one of distinction within NASSM and Fellows’ own academic communities, and (b) encourage high standards of research and other forms of scholarship among NASSM’s members.

Who’s Who in America, 2003, 2005

Phi Kappa Phi Honor Society, 2000

Delbert Oberteuffer Scholarship, The Ohio State University College of Education, 2000
Awarded for outstanding demonstrated potential in research


ACADEMIC/TEACHING EXPERIENCE

Associate Professor, Sport Management, The Ohio State University, College of Education & Human Ecology, Department of Human Sciences, Columbus, OH, 2009 – present.
- Courses taught include Sport Marketing (graduate and undergraduate), Sport Consumer Behavior, and Theoretical Approaches to Sport Organizations
- Supervise graduate internship experiences
- Faculty Affiliate – Sport & Society Initiative
- Advise approximately 6 doctoral and 15-20 master’s students per year

Assistant Professor, Sport Management, The Ohio State University, School of Physical Activity and Educational Services, Columbus, OH, 2004 – 2009.
- Courses taught included Sport Marketing (graduate and undergraduate), Topics in Organizational Behavior, Applied Research Methods and Statistics in Sport Management, Professional Writing and Publishing in Sport Management
- Supervise graduate internship experiences
- Advise approximately 4 doctoral and 15-20 master’s students per year

Assistant Professor, Sport Management, DeSales University, Division of Business, Center Valley, PA, 2001 – 2004.
- Courses taught included Sport Marketing & Promotions, Facility Planning & Event Management, History & Philosophy of Sport, Governance of Sport & Athletics, Ethics in Sport, Sociological and Psychological Issues in Sport, Principles of Coaching and Sport Administration
- Business courses taught included Introduction to Business and Principles of Management
- Supervised student internship experiences
- Advised approximately 30 students per year
- Served on the Academic Advising Advisory Board and the Enrollment Services committees

**Visiting Assistant Professor, Sport Management,** University of Oklahoma, College of Arts & Sciences, Health & Exercise Science, Norman, OK, 2000 – 2001.
- Courses taught included Sport Marketing (both undergraduate and graduate levels), Sports Psychology (graduate level), and a current topics graduate seminar class
- Supervised 2 master’s theses and served on 3 other master’s theses committees in sport management
- Served on department graduate committee

**Graduate Teaching Assistant,** The Ohio State University, College of Education, School of Physical Activity & Educational Services, 1998 – 2001.
- Courses taught included two coaching theory classes (Coaching Baseball and Coaching Track & Field), American Red Cross First Aid - Responding to Emergencies, Adult CPR, Golf I, Basketball I, and Softball II
- Supervised undergraduate coaching internships

- Courses taught included Algebra I, Geometry I, Remedial Math, Computer Science I and Computer Science II.
- Served as Junior Class advisor and as a committee advisor for the National Honor Society
- Supervised student-teacher and student volunteers from Baylor University

- Courses taught included 8th Grade Math and Algebra I. Also responsible for instructing Gifted and Talented students.
- Supervised student-teachers from Baylor University
Peer-Reviewed Research Articles (55)


**Book Chapters**


**GRANTS**

**Funded**


*Food Innovation Center (FIC): Team Award, New Collaborative Project in Obesity* (2011). Buckworth, J. (principal investigator), Kindrik, S., Schuster, D., Needleman, B.,

*National Collegiate Athletic Association (NCAA) Faculty Athletics Representative Grant* (2002). Used to attend Faculty Athletics Representative Association annual conference in Long Beach, CA - $1,100.

*Pennsylvania Link-to-Learn mini-grant* (2002). Used to incorporate technology into the class SS 330 Sport Marketing & Promotions - $2,000.

**Licensures**

Texas Teaching Licenses
- Secondary Physical Education; Secondary Computer Information Systems; Secondary Mathematics
Claire E. Bollinger, PhD, MS

The Ohio State University – Division of Health Sciences, Medical Dietetics, and Injury Biomechanics – School of Health and Rehabilitation Sciences
243D Atwell Hall, 453 W. 10th Ave, Columbus, OH 43210
614.366.9554 – claire.bollinger@osumc.edu

Education

PH.D. | 2017 | THE OHIO STATE UNIVERSITY, COLLEGE OF PUBLIC HEALTH

- Specialization: Environmental Health Sciences
- Minor Cognate Field: Epidemiology
- University Fellow 2011-2012
- OSU Board of Trustees Student Recognition Award Recipient, 2016
- OSU College of Public Health Student Choice Award Recipient, 2016/2017

M.S. | 2016 | THE OHIO STATE UNIVERSITY, COLLEGE OF PUBLIC HEALTH

- Specialization: Environmental Health Sciences

B.S. | 2009 | UNIVERSITY OF VERMONT, BURLINGTON, VT

- Major: Psychology
- Minor: Chemistry

Academic Achievements: Summa Cum Laude, Phi Beta Kappa, Psi Chi, Honors College, Dean's List (8 semesters), STAR Award 2006, 2007, 2008 (GPA in top 5% of on-campus students)

Professional Experience

- Clinical Instructor
  College of Medicine, School of Health and Rehabilitation Sciences
  August 2016 – Present
  - Courses taught: Health Promotion & Disease Prevention, Individual Differences in Patient/Client Populations, Case Studies in Health Sciences, Community and Policy Influence in Health Care
  - Course development: Case Studies in Health Sciences online; Individual Differences in Patient/Client Populations online

- Lecturer
  College of Public Health
  Summer 2016
  - Development and delivery of course materials and assignments for 6-week version of Introduction to Global Public Health (PUBHLTH 2010)

- Instructor
  Hubei Visiting Scholar Program
  August 2015
  Introduction to Public Health for Health Sciences Majors
- Designed and delivered 8 lectures for visiting scholars from the Hubei Outstanding University Students Program.

**Graduate Teaching Associate**

**August 2012- May 2016**

*College of Public Health, Division of Environmental Health Sciences*

- Assistance in course material development, Carmen course website management, and scoring for graduate and undergraduate-level courses.
  
  **Courses assisted:** Current Topics in Global Environmental Health (PUBHEHS 3310), Fundamentals of Environmental Risk Assessment (PUBHEHS 3320), Principles of Environmental Health Sciences (PUBHEHS 6305/6310/6315), Principles of Toxicology (PUBHEHS 5315) Principles of Occupational Health (PUBHEHS 5325), Molecular Techniques for Environmental Health Sciences (PUBHEHS 8340), Exposure Science Monitoring Techniques (PUBHEHS 7380), Global Environmental Microbiology (PUBHEHS 6320)

- Development and delivery of lectures for Current Topics in Global Environmental Health (PUBHEHS 3310)


**Resident Advisor and Guest Lecturer**

**May 2014**

*College of Public Health, Division of Environmental Health Sciences*

**Field Experience in Global Public Health: China** (PUBHLTH 3189)

- Traveled to China with students from Ohio State as part of study abroad experience and served as a basic academic resource.

- Prepared and delivered lectures to OSU and Dalian Medical University students.

  **Topics/ Modules covered:** The Changing Nature of Infectious and Non-infectious Disease; Food Safety, Security, & The Global Rise of Obesity

**Peer-Reviewed Publications**


Invited Book Chapter

Invited Lectures
Epidemiological Considerations in Gestational Diabetes. March 1, 2019. The Ohio State University School of Health and Rehabilitation Sciences: Division of Health Sciences, Medical Dietetics, and Injury Biomechanics. MEDDIET 4925: Nutrition Care Process VI.


Abstracts & Presentations


**Mentorship**

- **Research Mentorship, Brianna VanNoy, BSPH 2016, The Ohio State University** August 2015-May 2016
  - Assistance in the development of research project *Characterization of the glucose tolerance in the Diversity Outbred (DO) strain across generations*.
    - Presented at 2016 Denman Undergraduate Research Forum
  - Training in animal handing, glucose tolerance testing, and presentation of data.

- **Research Mentorship, Caroline Liu, Junior, Johns Hopkins University** May 2015-August 2015
  - Facilitated summer research experience learning skills in reviewing literature, cleaning data, working in ArcGIS, and animal handling.

**Other Experience and Professional Memberships**

- **Reviewer, PLOS 1** 2013-Present
- **Student Member, Society of Toxicology** 2014-Present
- **Student Member, American Heart Association** 2016-Present
A. Personal Statement

My laboratory and research collaborations have an extensive history of research into exercise and exercise training focusing on various mechanisms that mediate function and performance including the study of endocrine mechanisms, neuromuscular physiology, cellular biochemical responses, nutrition, across the life span. As noted by the university overview of my career thus far, “with over 480 peer reviewed scientific publications, 12 books and a Google scholar H rating of 129 and with over 54,000 citations on Harzing’s Publish or Perish lists and an honorary doctorate from the University of Jyväskylä in Finland in 2016 he has demonstrated the worldwide influence of his research.

B. Positions and Honors

1975-1976 Health/Teacher/Coordinator, Marshfield Public Schools, Marshfield, WI
1976-1977 Research Fellow, Human Energy Research Laboratory, Univ. of Wyoming, Laramie, WY.
1977-1980 Assistant Professor Departments of Physical Education & Biology, Athletics: Head Wrestling Coach, Assistant Football Coach, Head Strength Coach, Carroll College, Waukesha, WI.
1980-1984 Graduate Doctoral Research Fellow, Department Zoology & Physiology, College of Medicine, University of Wyoming, Laramie, WY.
1984-1987 Senior Physiologist, Commissioned Officer U.S. Army, (CPT), Head- Exercise Biochemistry. U.S. Army Research Institute of Environmental Medicine, Natick, MA.
1986-1991 Adjunct Assistant Professor, Boston University, Department of Health Sciences, Boston, MA
1987-1989 Assistant Professor, Director Exercise Biochemistry, Departments of Exercise Science/Physiology and Neurobiology, University of Connecticut, Storrs, CT.
1998-2001 John and Janice Fisher Endowed Chair in Exercise Physiology, Professor of Physical Education, Biology, Physiology and Health Sciences, Director – The Human Performance Laboratory, Director Graduate and Undergraduate Programs in Exercise Science, Ball State University, Muncie, IN, Professor Physiology and Biophysics, Indiana University Medical School, Indianapolis, IN.
2001-2014. Professor of Kinesiology, Professor of Physiology and Neurobiology, Professor of Medicine, Human Performance Laboratory, Department of Kinesiology, Department of Physiology and Neurobiology, University of Connecticut, Storrs, CT. Director of Research – Dean’s Office, Neag School of Education, 2001-2005, Professor, University of Connecticut’s School of Medicine/UCONN Health Center, Farmington, CT.

2014-present
Professor, Department of Human Sciences, College of Education and Human Ecology, Head, Neuroscience/Neuromuscular Research Laboratory
Member – Recovery, Injury Prevention and Performance Group, Jameson Crane Sports Medicine Institute, Senior Scientific Advisor - Stanley D. and Joan H. Ross Center for Brain Health and Performance, OSU Wexner Medical Center Sports Medicine Research Institute.
The Ohio State University, Columbus, OH.

Selected Honors and Awards
2019  45 Year American College of Sports Medicine Award
2018 – Alumni of the Year Award – College of Health Sciences, Division of Kinesiology and Health Sciences, University of Wyoming, Sept.
•2018- President’s Honor Award - Historical Contributions to the Field. National Strength and Conditioning Association July
•2018 - Special Editorial Excellence Award – 30 years as Editor-In-Chief and Founder of the Journal of Strength and Conditioning Research, National Strength and Conditioning Association, July
2016 Honorary Doctorate – Health Sciences, University of Jyväskylä, Jyväskylä Finland.
2015 American College of Sports Medicine New England Chapter Honor Award
2014 Based on “Expertscape’s” objective, past 10 years, top expert in field of resistance training research
2009 University of Connecticut Alumni Association – Outstanding Faculty Excellence in Research Award
2009 University Medallion – University of Jyväskylä, Jyväskylä, Finland (1st non-Finish Award winner)
2009 Neag School of Education - Outstanding Research Award
2006 Named Award – William J. Kraemer Outstanding Sport Scientist Award, NSCA
2005 Provost's Research Excellence Award Medal – University of Connecticut, Storrs, CT
2004 World Scientist Forum - Eminent Scientist Award
2002 National Aeronautics Space Administration Certificate of Appreciation Award
2002 Educator of the Year, National Strength and Conditioning Association,
1997 Maurice O. Graff Distinguished Alumni Award - University of Wisconsin - LaCrosse
1996 College Alumni Excellence Award - University of Wisconsin - LaCrosse
1994 Lifetime Achievement Award, National Strength and Conditioning Association,
1992 Outstanding Sport Scientist Award, National Strength and Conditioning Association

C. Selected Peer-reviewed Publications (selected from over 480)
https://www-ncbi-nlm-nih-gov.proxy.lib.ohio-state.edu/pubmed/?term=Kraemer+WJ


CV | Scott Swearingen

Educational History:

M.F.A., May 2004, The Ohio State University, College of Arts and Sciences, Department of Art (258 Hopkins Hall, 128 N. Oval Mall, Columbus, OH 43210-1363), Art & Technology

B.F.A., December 1998, The Ohio State University, College of Arts and Sciences, Department of Art (258 Hopkins Hall, 128 N. Oval Mall, Columbus, OH 43210-1363), Art & Technology

Employment History:

Assistant Professor, 2016-present, The Ohio State University, College of Arts and Sciences, Department of Design, 100 Hayes Hall, 108 North Oval Mall, Columbus, Ohio 43210

Assistant Professor, 2013-2016, The University of Texas at Dallas, School of Arts, Technology, and Emerging Communication, 800 West Campbell Rd, AT 10, Richardson, TX 75080

Game Designer, 2010-2012, MAXIS/Electronic Arts Inc., 209 Redwood Shores Pkwy, Redwood City, CA 94065

Level Designer, 2006-2010, Electronic Arts Inc., 209 Redwood Shores Pkwy, Redwood City, CA 94065

Assistant Professor, 2005-2006, The University of Texas at Dallas, School of Arts and Humanities, Art & Technology, 800 West Campbell Rd, AT 10, Richardson, TX 75080

Level Designer, 2005, Gearbox Software, 101 E. Park Blvd. #1200, Plano, TX 75074

Level Designer, 2003-2004, TKO-Software, 2161 Delaware Ave., Santa Cruz, CA 95060

Awards:

Exhibitions, Workshops, Presentations, Posters:


Published Titles:

NAME: James Onate

eRA COMMONS USER NAME (credential, e.g., agency login): onatejames

POSITION TITLE: Associate Professor and Chair, Graduate Studies Health and Rehabilitation Sciences at The Ohio State University

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>Completion Date MM/YYYY</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Florida, Gainesville, FL</td>
<td>BS</td>
<td>05/1994</td>
<td>Exercise &amp; Sport Science</td>
</tr>
<tr>
<td>University of North Carolina, Chapel Hill, NC</td>
<td>MA</td>
<td>05/1997</td>
<td>Exercise &amp; Sport Science</td>
</tr>
<tr>
<td>University of North Carolina, Chapel Hill, NC</td>
<td>PhD</td>
<td>12/2002</td>
<td>Human Movement Science</td>
</tr>
</tbody>
</table>

A. Personal Statement

I am excited to lend my expertise to lead the Human Performance Collaborative effort at The Ohio State University. I am excited to aid with the scientific and academic approach of clinical research focused on human performance optimization and sustainment. I look forward to contributing to the effort through my expertise in musculoskeletal injury assessment and human performance optimization of physically active individuals. I am confident that I can contribute to the leadership of this outstanding team as my experience as Director of the Movement Optimization preVention for Exercise Sustainment (MOvES) research laboratory at The Ohio State University, in addition to my academic leadership background as the Chair of the Graduate Studies Committee at The Ohio State University’s College of Medicine School of Health and Rehabilitation Sciences graduate programs and the Director of the PhD program in Health and Rehabilitation Sciences. I have successfully led and been a part of several National Institutes of Health (NIH), Department of Defense, and various foundation and agency sponsored grants. My role as an international, national, and community leader in injury prevention and performance enhancement as a certified athletic trainer and human performance expert will aid in the clinical integration of research to optimize and sustain human performance potential.

Selected Peer-Reviewed Manuscripts

B. Positions

Employment

2002-2003  Boston University Department of Rehabilitation Sciences, Boston, MA
   Assistant Professor

2003-2009  Old Dominion University Department of Human Movement Science: Norfolk, VA
   Assistant Professor

2003-2009  Old Dominion University Sports Medicine Research Laboratory: Norfolk, VA
   Director

2010-present  The Ohio State University School of Health & Rehabilitation Sciences: Columbus, OH
   Assistant Professor

2014-2018   The Ohio State University School of Health & Rehabilitation Sciences: Columbus, OH
   Chair, Graduate Studies Committee
   Director, PhD Program in Health and Rehabilitation Sciences

2010-present  The Ohio State University MOvES Laboratory: Columbus, OH
   Associate Professor

2018-present   The Ohio State University: Columbus, OH
   Chair, Graduate Studies Committee
   Director, PhD Program in Health and Rehabilitation Sciences

2018-present  The Ohio State University: Columbus, OH
   Member, Sports Medicine Research Institute

2018-present   The Ohio State University: Columbus, OH
   Senior Scientific Advisor, Stanley D and Joan H Ross Center for Brain Health and Performance

2019-present   The Ohio State University: Columbus, OH
   Faculty Lead, Human Performance Collaborative in Office of Research

Other Experience and Professional Memberships:


2005-2017  Research Consultant, Research Advisory Council, BTE Technologies, Inc,

1993-present  Member, National Athletic Trainers’ Association

2003-present  Member, American College of Sports Medicine

2004-present  Editorial Board, Journal of Athletic Training

2006-present  Research Consultant, Naval Special Warfare Development Group

2013-present  Associate Editor, Journal of Athletic Training

C. Contribution to Science

1. My initial primary contribution to science revolves around the use of motor learning paradigms relative to altering biomechanical movement patterns. My research focused on jump-landing movement mechanics relative to anterior cruciate ligament (ACL) injury prevention has focused on developing methodologies to aid in altering theorized lower extremity movement patterns as a primary and secondary injury prevention model. By providing evidence and simple clinical approaches to influencing movement pattern alteration, this body of work has helped to shape the primary prevention and secondary rehabilitation relative to ACL injury for physically active individuals.


2. My secondary contributions to science have been focused on clinical biomechanical movement screening relative to contributing to primary and secondary models of musculoskeletal injury prevention. Efforts focused on movement screening prior to participation and biomechanical assessments has been the recent thrust towards developing primary and secondary injury prevention paradigms for musculoskeletal injury in
physically active individuals. Biomechanical assessments including postural control, kinematics, kinetics, and functional motion assessment have been the primary methods utilized for developing parsimonious clinical approaches to pre-participation assessments intent on decreasing the risk for musculoskeletal injury primarily in the lower extremity of various types of physically active individuals and shoulder/elbow injuries in baseball players.


D. Research Support

**Current Research Support (relevant to current project)**

Grooms (PI) 9/2018-9/2021
Department of Defense
Peer Reviewed Orthopaedic Research Program – Applied Research Award
OR170266: “Rehabilitation 2.0: Addressing Neuroplasticity in the Musculoskeletal Rehabilitation Model”
*Role: Co-Investigator*

The role of neuroplasticity following musculoskeletal injury will be explored following Anterior Cruciate Ligament reconstruction in post-surgical military and civilian populations to examine the optimal rehabilitation protocols for enhanced neuromotor recovery following injury rehabilitation.

**Completed Research Support (relevant to current project)**

Onate (PI) 1/2013-10/2018
National Institute of Health R01
National Institute of Arthritis Musculoskeletal and Skin Diseases
5R01AR062578-02: “Functional Evaluation to Predict Lower Extremity Musculoskeletal Injury”.
*Role: Principal investigator*

The National Federation of State High School Associations considers the preparticipation physical evaluations (PPE) a prerequisite to athletics participation, yet despite this recommendation there are no large-scale controlled trials confirming the effectiveness of the PPE. As a first step towards addressing this limitation, our preliminary data demonstrates that deficits in functional performance (i.e., balance, strength, and movement control) are able to predict lower extremity injury.

Onate (PI) 3/2010 – 7/2015
United States Special Operations Command: SORDAC Project Number MEDTECH-R495371-10 “Naval Special Warfare Combatant Crewmen Peak Health and Performance Sustainment Model”
*Role: Principal Investigator*

The main objective of this research project is to implement an evidence-based on-site assessment process to evaluate the physical and biogenetic markers of Navy Special Warfare Combatant Crewmen (SWCC) operators for attaining and sustaining peak performance throughout their careers and lives. The goal of this project is to evaluate the sustainment of SWCC operators’ peak health and performance pre- and post-deployment by evaluating markers of performance throughout their training-deployment cycle to create a personalized performance sustainment model to maintain optimal operational readiness.
March 1, 2019
Kyoung Lee Swearingen

Educational History:

M.F.A., May 2004, The Ohio State University, College of Arts and Sciences, Department of Art (258 Hopkins Hall, 128 N. Oval Mall, Columbus, OH 43210-1363), Art & Technology
Thesis: Visualizing Subjective Perception through Illustrations of Polarized Concept: entry vs. exit Master’s Examination Committee: Dr. Midori Kitagawa (Adviser), Tony Mendoza, Dr. Wayne Carlson, Amy Youngs

B.F.A, March 2001, Savannah College of Art and Design (342 Bull Street, Savannah, GA 31402), Computer Art

B.S., February 1995, Sungshin Women’s University, College of Natural Science (249-1, Dongseon-dong 3-ga, Seongbuk-gu, Seoul, 136-742, South Korea), Chemistry

Employment History:

Assistant Professor, Aug 2016- Present, Department of Design, The Ohio State University, 155 Oval Dr. S, Columbus, OH 43210

Assistant Professor, Aug 2013- Aug 2016, School of Arts, Technology, and Emerging Communication, The University of Texas at Dallas, 800 West Campbell Rd, AT 10, Richardson, TX 75080

Lighting Technical Director, July 2006- August 2013, Pixar Animation Studios, 1200 Park Ave. Emeryville, CA 94608

Lighting Artist, January 2005- July 2006, DNA Productions, Irving, TX

Lecturer, September 2005- May 2006, Arts and Technology, School of Arts and Humanities, The University of Texas at Dallas, 800 West Campbell Rd, Richardson, TX 75080

Graduate Research Associate, September 2003- May 2004, The Ohio State University, Advanced Computing Center for the Arts and Design (ACCAD), 331 Sullivant Hall 1813 N. High Street Columbus, OH 43210

Graduate Teaching Associate, September 2001- May 2003, The Ohio State University, Department of Art, 258 Hopkins Hall, 128 N. Oval Mall, Columbus, OH 43210-1363
Published Article:


Achievements in original investigation:

Games:


Films:


4. Swearingen, Kyoung Lee, Lighting Technical Director, Monsters University. Directed by Dan Scanlon, Feature Film, Pixar Animation Studios, Walt Disney Pictures, June, 2013.


8. Swearingen, Kyoung Lee, Lighting Technical Director, La Luna. Directed by Enrico Casarosa, Short Film, Pixar Animation Studios, Walt Disney Pictures, June, 2011.


Workshop:


Poster:


2. Kyoung Lee Swearingen and Scott Swearingen. September 16, IFIP-ICEC 2018. Poznan, Poland, poster session "Designing a Cooperative Mixed-Reality Game about Reconciliation"

Invited Talks/Presentations:

1. Kyoung Lee Swearingen and Scott Swearingen. 2019, February. From Industry to Academia: Collaborative games and storytelling Through Humane Technology, University of South Florida, Tampa, FL


Awards and Fellowships:

1. Wall- Mounted Level, "Special recognition: Poster and Demo" IFIP-ICEC 2018, Poznan, Poland, August 16, 2018

2. Sonder, California Independent Film Festival, Moraga, CA August 24- September 1, 2018

3. Sonder, Canberra Short Film Festival, Canberra, Australia September 9-16,

4. Sonder, Sioux City International Film Festival, Sioux City, Iowa September 12-16, 2018

5. Sonder, San Jose International Short Film Festival, San Jose, California October 11-14, 2018

6. Sonder, Bucheon International Animation Festival, Bucheon, Korea October 19-23, 2018
7. *Sonder*, Orlando Film Festival, Orlando, Florida October 18-25, 2018
8. *Sonder*, Spark Animation Film Festival, Vancouver, Canada October 25-28
9. *Sonder*, Edinburgh Short Film Festival, Edinburgh, Scotland October 26-November 10, 2018
10. *Sonder*, Short Sounds Film Festival, Bournemouth, UK November 1-2, 2018
11. *Sonder*, San Diego Asian Film Festival, San Diego, CA November 8-17, 2018
12. *Sonder*, Foyle Film Festival, Derry, Northern Ireland November 16-25, 2018
13. *Sonder*, Anchorage International Film Festival Anchorage, Alaska, November 30-December 9, 2018
14. Wall-Mounted Level, Best Innovative game award, Montreal Independent Games Festival, 11/19/2017
15. Wall-Mounted Level, Best Social Impact game award, Montreal Independent Games Festival, 11/19/2017
16. Faculty Fellowships, Co-recipient: Scott Swearingen, University of Texas at Dallas, Richardson TX 2013-2015
22. "Monsters University", Broadcast Film Critics Association Critics Choice Movie Awards, Best Animated Film (Nominated), Pixar Animation Studios, June 2013.
24. "Monsters University", San Francisco Film Critics Circle Awards, Best Animated Film (Nominated), Pixar Animation Studios, June 2013.

25. "Monsters University", Saturn Awards, Best Animated Film (Nominated), Pixar Animation Studios, June 2013.

26. "Monsters University", Washington DC area Film Critics Association Awards, Best Animated Film (Nominated), Pixar Animation Studios, June 2013.

27. "Monsters University", International 3D Society, Motion Picture, Animated or Mixed Media (Nominated), Pixar Animation Studios, June 2013.


29. "Monsters University", St. Louis Film Critic Association Awards, Best Animated Feature (Nominated), Pixar Animation Studios, June 2013.

30. "Monsters University", New York Film Critics Circle Awards, Best Animated Film (3rd Place), Pixar Animation Studios, June 2013.

31. "Monsters University", Seattle International Film Festival, Best Film (3rd Place), Pixar Animation Studios, June 2013.

32. "Brave", Saturn Award Best Animated Film (Nominated), Pixar Animation Studios, June 2012.

33. "Brave", Annie Awards, Best Animated Feature (Nominated), Pixar Animation Studios, June 2012.

34. "Brave", BAFTA Awards, Best Animated Film, Pixar Animation Studios, June 2012.

35. "Brave", Broadcast Film Critics Association Critics Choice Movie Awards, Best Animated Film, Pixar Animation Studios, June 2012.

36. "Brave", Chicago Film Critics Association Awards, Best Animated Film (Nominated), Pixar Animation Studios, June 2012.

37. "Brave", Phoenix Film Critics Association Awards, Best Animated Film (Nominated), Pixar Animation Studios, June 2012.

38. "Brave", San Diego Film Critics Association Awards, Best Animated Film (Nominated), Pixar Animation Studios, June 2012.

39. "Brave", Iowa Film Critics Association Awards, Best Animated Film (Nominated), Pixar Animation Studios, June 2012.
40. "Brave", International 3D Society, Motion Picture, Animated or Mixed Media (Nominated), Pixar Animation Studios, June 2012.


42. "Brave", Toronto Film Critics Association Awards, Best Animated Feature (Runner-Up) Pixar Animation Studios, June 2012.

43. "Brave", Golden Globe Award for Best Animated Feature Film, Pixar Animation Studios, June 2012.

44. "La Luna", Academy Award, Best Short Film - Animated (Nominated), Pixar Animation Studios, June 2012.

45. "La Luna", Annie Award, Best Animated Short Subject (Nominated), Pixar Animation Studios, June 2012.

46. "La Luna", Annecy International Animated Film Festival, Pixar Animation Studios, June 2011.

47. "Cars 2", Annie Award, Best Animated Feature (Nominated), Pixar Animation Studios, June 2011.


49. "Toy Story 3", Academy Award, Best Picture (Nominated), Pixar Animation Studios, June 2010.

50. "Toy Story 3", Academy Award, Best Animated Feature, Pixar Animation Studios, June 2010.

51. "Toy Story 3", Excellent Dynamic Activism Award, Best Animated Film, Pixar Animation Studios, June 2010.

52. "Toy Story 3", American Film Institute, AFI Movies of the Year, Pixar Animation Studios, June 2010.


54. "Toy Story 3", BSFC Award, Best Animated Film, Pixar Animation Studios, June 2010.
55. "Toy Story 3", BSFC Award, Best Picture (Runner-up), Pixar Animation Studios, June 2010.


57. "Toy Story 3", BAFTA, Animated Film, Pixar Animation Studios, June 2010.

58. "Toy Story 3", Broadcast Film Critics Association, Best Picture (Nominated), Pixar Animation Studios, June 2010.


60. "Toy Story 3", COFCA Awards, Best Animated Film, Pixar Animation Studios, June 2010.


62. "Toy Story 3", DFWFCA Award, Best Animated Film, Pixar Animation Studios, June 2010.

63. "Toy Story 3", FFCC Award, Best Animated Film, Pixar Animation Studios, June 2010.


67. "Toy Story 3", HFCS Award, Best Animated Film, Pixar Animation Studios, June 2010.


70. "Toy Story 3", IFC Award, Best Animated Film, Pixar Animation Studios, June 2010.

71. "Toy Story 3", KCFCC Award, Best Animated Film, Pixar Animation Studios, June 2010.
72. "Toy Story 3", Sierra Award, Best Family Film, Pixar Animation Studios, June 2010.

73. "Toy Story 3", Sierra Award, Best Animated Film, Pixar Animation Studios, June 2010.

74. "Toy Story 3", LCC Award, Sky 3D Award: Film of the Year (Nominated), Pixar Animation Studios, June 2010.

75. "Toy Story 3", LAFCA Award, Best Animation, Pixar Animation Studios, June 2010.


77. "Toy Story 3", NYFCO Award, Best Animated Film, Pixar Animation Studios, June 2010.

78. "Toy Story 3", NTFCA Award, Best Animated, Pixar Animation Studios, June 2010.

79. "Toy Story 3", OFCC Award, Best Animated Film, Pixar Animation Studios, June 2010.


82. "Toy Story 3", Golden Tomato Award, Best Reviewed Film, Pixar Animation Studios, June 2010.

83. "Toy Story 3", SDFCS Award, Best Animated Film, Pixar Animation Studios, June 2010.

84. "Toy Story 3", SFFCC Award, Best Animated Feature, Pixar Animation Studios, June 2010.

85. "Toy Story 3", UFCA Award, Best Picture (Nominated), Pixar Animation Studios, June 2010.

86. "Toy Story 3", UFCA Award, Best Animated Feature, Pixar Animation Studios, June 2010.


88. "Toy Story 3", WAFCA Award, Best Animated Feature, Pixar Animation Studios, June 2010.

90. "Up", Academy Award, Best Picture (Nominated), Pixar Animation Studios, May 2009.


100. "Up", Broadcast Film Critics Association, Best Picture (Nominated), Pixar Animation Studios, May 2009.


108."Up", PFCS Award, Best Animated Film, Pixar Animation Studios, May 2009.


110."Up", WAFCA Award, Best Animated Film, Pixar Animation Studios, May 2009.


112."WALL-E", Academy Award, Best Animated Feature, Pixar Animation Studios, June 2008.

113."WALL-E", BAFTA, Animated Film, Pixar Animation Studios, June 2008.

114."WALL-E", BAFTA Children's Awards, Feature Film, Pixar Animation Studios, June 2008.

115."WALL-E", BSFC Award, Best Picture (Tie), Pixar Animation Studios, June 2008.

116."WALL-E", BSFC Award, Best Animated Film, Pixar Animation Studios, June 2008.

117."WALL-E", CFCA Award, Best Picture, Pixar Animation Studios, June 2008.

118."WALL-E", CFCA Award, Best Animated Feature, Pixar Animation Studios, June 2008.

119."WALL-E", Broadcast Film Critics Association, Best Animated Feature, Pixar Animation Studios, June 2008.

120."WALL-E", London Critics' Circle, Film of the Year (Nominated), Pixar Animation Studios, June 2008.

121."WALL-E", Academy Award, Best Animated Feature, Pixar Animation Studios, June 2008.


123."WALL-E", LAFCA Award, Best Picture, Pixar Animation Studios, June 2008.

124."WALL-E", Loutzenhiser Award, Best Animated Film, Pixar Animation Studios, June 2008.


128."WALL-E", NYFCC Award, Best Animated Film, Pixar Animation Studios, June 2008.

129."WALL-E", OFCC Award, Best Animated Film, Pixar Animation Studios, June 2008.

130."WALL-E", International Press Academy, Motion Picture, Animated, or Mixed Media, Pixar Animation Studios, June 2008.

131."WALL-E", Saturn Awards, Best Animated Film, Pixar Animation Studios, June 2008.

132."WALL-E", SLFCA Award, Best Picture (Nominated), Pixar Animation Studios, June 2008.

133."WALL-E", SLFCA Award, Best Animated Film, Pixar Animation Studios, June 2008.

134."WALL-E", SLFCA Award, Most Original, Innovative, or Creative Film, Pixar Animation Studios, June 2008.

135."WALL-E", UFCA Award, Best Animated Feature, Pixar Animation Studios, June 2008.


137."WALL-E", VFCC Award, Best Film (Nominated), Pixar Animation Studios, June 2008.

138."WALL-E", American Film Institute, AFI Movies of the Year, Pixar Animation Studios, June 2008.

139."Presto", Academy Award, Best Short Film - Animated (Nominated), Pixar Animation Studios, June 2008.

140."Presto", Annie Award, Best Animated Short Subject (Nominated), Pixar Animation Studios, June 2008.

141."Ratatouille", Academy Award, Best Animated Feature, Pixar Animation Studios, June 2007.

142."Ratatouille", Broadcast Film Critics Association, Best Animated Feature, Pixar Animation Studios, June 2007.
143. "Ratatouille", American Film Institute, AFI Movies of the Year, Pixar Animation Studios, June 2007.


146. "Ratatouille", LAFCA Award, Best Animation, Pixar Animation Studios, June 2007.

147. "Ratatouille", BAFTA, Animation Film, Pixar Animation Studios, June 2007.


150. "Enclosure #2", Zlinksy Pes - The Student Film Competition, Czech Republic, Animated Film, May 2004.

151. "Enclosure #2", Wexner Center Student Film and Video Showcase, Columbus, OH, Animated Film, September 2003.


Appendix C: Letters of Concurrence
April 14, 2019

To: The Office of Academic Affairs:  
From: Mary Anne Beecher, Chairperson, Department of Design 
RE: Concurrence for interdisciplinary eSports and Games major

The Department of Design is pleased to provide concurrence for the new interdisciplinary eSports and Games major. We look forward to contributing to the provision of the track of study that will focus on making in the form of the design and development of games. With five required courses from Design, this interdisciplinary major provides a very valuable opportunity for our department to collaborate with Computer Science Engineering to support a track of study that is focused on game design and development.

Although we provide courses in support of ASC’s interdisciplinary Game Studies minor program, we see this new major as distinctive from the minor and are pleased that it has a structure that takes advantage of efficiencies that include using existing courses from multiple departments. Students studying in the minor will benefit from taking courses with eSports and Games majors who have more advanced understanding of games as an academic subject.

Likewise, we do not see this new major as a redundancy with any of our current design majors or a new design major in Interactive Media Design that we are proposing to start in 2020. Instead, eSports and Games expands the efficiency of extending student interest and expertise in game making and it provides an opportunity to reinforce needed faculty expertise and facilities that can serve multiple populations in the spirit of multidisciplinary teaching and research.

Sincerely,

Dr. Mary Anne Beecher, Professor and Chairperson  
Department of Design  
100 Hayes Hall  
108 North Oval Mall  
Columbus, OH 43210
Dear Randy,

On behalf of the College of Education and Human Ecology, I am pleased to offer our enthusiastic support for the new Esports and Game Studies major. We believe this major represents an important collaborative initiative within the university, that it will serve a new population of students, and that it will build bridges to the larger community. We stand ready to contribute to the further development and implementation of this new major.

Please contact me if I can be of further assistance (warnick.11@osu.edu).

Sincerely,

Bryan Warnick
Associate Dean for Academic Affairs
April 12, 2019

Dear Randy,

I am writing to express my support of the proposed eSports and Gaming Curriculum designed for use at The Ohio State University. This new program will offer students a wide range of opportunities through which to contribute positively to the burgeoning eSports and Gaming industries. In particular the focus on ethical behavior, and issues such as the assurance of beneficence, are crucial in setting the program apart and preparing students for the challenges that these industries are faced with today and into the future. I have every hope that our OSU students will lead a virtuous path for the evolution of activity in these domains.

On behalf of Fisher College of Business, I concur with the program proposal.

Sincerely,

Professor Elliot Bendoly, PhD
Associate Dean of Undergraduate Students and Programs
& Fisher College of Business Distinguished Professor
Management Sciences, The Ohio State University
April 15, 2019

W. Randy Smith, Ph.D.
Vice Provost, Academic Programs
Office of Academic Affairs
203 Bricker Hall
190 North Oval Mall

Dear Randy,

The College of Medicine fully endorses the proposed new undergraduate major: **Esports and Game Studies.** The College of Medicine has been involved in the development of this major through the Application of Games in Medicine track. This new major will serve to broaden our ability to develop workforce-ready graduates in the expanding field of gaming science in health and health professions education. We anticipate that this new major and the health track specifically will be well subscribed.

Please do not hesitate to contact me if I can provide further information in support of this proposed new major.


-Sincerely,

Daniel M. Clinchot, MD
Vice Dean for Education
Associate Vice President for Health Sciences Education
Chair, Department of Biomedical Education & Anatomy
College of Medicine

DMC:sl
April 15, 2019

Re: BS in Esports and Game Studies

To Whom It May Concern:

I am writing this letter in enthusiastic support of the proposed undergraduate degree in Esports and Game Studies. Faculty from the School of Health and Rehabilitation Studies have been integrally involved in the creation of this major, and we are excited about the potential of this major and especially the “Application of Games in Medicine and Health” track to attract new students to the University or provide existing students with a novel new major. We are preparing to develop the three courses (HLTHRSC designation) and will be hiring an associated faculty member to teach these courses initially. We also have the capacity to enroll students in the HLTHRSC 3400 course, which is taught each semester.

I appreciate the opportunity to provide this letter of support and am available to answer any questions related to the School’s involvement in the major, if they should arise.

Sincerely,

Deborah S. Larsen, PhD, FASAHP, FAPTA
Professor and Director, School of Health and Rehabilitation Sciences
Associate Dean, College of Medicine
Associate Vice President, Health Sciences