

Application for Mildred Dahne Award, Department of Interactive Multimedia, Spring 2019

The Department Interactive Multimedia (IMM) is an undergraduate Bachelor of Arts program that embraces technology as a creative tool to express, communicate, empower, and entertain. Our core curriculum provides a foundation of skills and knowledge in digital media production, creative coding, and interactive design, coupled with an awareness of the historical and cultural forces that shape our attitudes toward technology. Our student enrollment numbers have increased steadily over 15 years, with an average yearly growth rate of nearly 13%. IMM was founded as a program in 2003 by faculty specializing in Digital Media, Computer Science, and Professional Writing. We secured our first full-time faculty hire in 2005 and undertook a program review in 2011 that ultimately led to our reclassification as a Department in 2012. By all quantitative measures, IMM is now firmly established and flourishing. As of February 2019, we have five full-time faculty, 151 majors, and 47 minors. Perhaps more significantly, we attained high yield numbers for freshman admissions of 39% in 2017 and 37% in 2018. We have also demonstrated strong student outcomes, including placements at prestigious graduate programs and our 2018 selection as the #3 institution in New Jersey for both Animation & Game Design by Animation Career Review. We are proud of these internal and external validations of our programmatic excellence.

In addition to the *Excellence in teaching and/or support of teaching*, our proposal addresses the categories of *Department Impact* and *Student Involvement* (all with a sprinkling of *Innovation and Creativity* throughout). The outcomes highlighted in each of these categories overlaps and informs the others.

Excellence in teaching and/or support of teaching

IMM faculty are recognized for their excellence in teaching in several ways. First of all, IMM teaching evaluation scores are strong; out of all 26 IMM sections that received online course feedback for Fall 2018, the *average* Instructor score was 4.26. However, IMM's teaching and support of teaching extends way beyond the classroom. Here we will highlight written feedback from students on course evaluations and program outcomes, discuss the rapid, iterative curricular innovations that we have undertaken, and share the various social opportunities and field experiences that we offer our students.

Excellence in teaching - Student Outcomes

We argue that interdisciplinary breadth is an essential core competency of our graduates. Most IMM students have an additional minor or major, and we believe that this is also an essential component of their education. Our graduates have built successful careers as web and mobile developers, video game artists, animators and filmmakers, exhibit designers, project managers, teachers, instructional designers, user experience designers, and related professions. They've gone on to graduate study in a range of fields including animation, computer science, education, business, theater technology, and music technology. Our diverse and dynamic curriculum encourages current students to be alert to new opportunities and pursue new interests while they're at TCNJ; likewise, our graduates leave the College confident in the mindset of lifelong learning, equipped to adapt to a professional landscape that's always shifting.

Kerrin McLaughlin, a 2017 graduate, is a successful User Experience Designer who will be teaching a Mini Course for us during the Spring 2019 semester. She calls IMM "the perfect fusion of design and technology, and the program has left me with an unremitting desire to create." Austin Merritt, a 2018 graduate, was accepted into SMU Guildhall, the highest rated graduate video game design program in the world. In an update written to Prof. Josh Fishburn after spending some time at Guildhall, he writes "I feel surprisingly prepared here thanks to our work together and know that I wouldn't be able to pursue this without your guidance during my last few years at TCNJ...I hope you continue to inspire students the way you inspired me." Perry Goldman, an alum who is now an Instructional Designer for the Research Foundation of CUNY, tells IMM affiliate Prof. Kathleen Webber: "In the past year, the Venn diagram that was "technical writing" and "instructional designer" have stopped being two separate circles and, in some cases, are completely overlapping each other now. So I want to tell you that literally everything we ever learned in JPW250 (note: JPW 250 is cross-listed with IMM 140) has come in handy for me."

IMM prides itself on being a caring community with high standards that simultaneously recognizes that students come to our classes with a range of experiences. These comments from student course evaluations reflect that balance of care and rigor:

- “I loved how laid back the class was and how students were free to explore whatever they wanted. Even though I put a lot of work in my assignments, I did not feel stressed due to my enjoyment of programming and my knowledge that you were always there to help. Feedback was always given that would help make my projects even stronger.”
- “Enlightening class and possibly the most understanding and fun professor I’ve had the fortune to know.”
- “The ability to help me write papers and formulate my ideas correctly was so helpful to me, and the feedback the professor gave was great.”

Although internships are not required, In the past five years, students have completed internships at a number of prestigious local and national companies. They include DreamWorks (3 students, 1 of whom now works for the company); Amazon, Nickelodeon, CBS, Game-U. Local companies include: Critical Response Group, Oxford Communications, Princeton Partners, and Trip Advisor.

Excellence in teaching - Curricular Innovations

IMM’s primary strength is its dynamic curriculum. Rather than teaching the same course the same way one semester after the next, our faculty are consistently willing to develop new courses, retool current courses, or revive dormant courses in response to new opportunities or student demand.

Mini Courses

As IMM chair, Prof. John Kuiphoff initiated an innovative Mini Course model in Fall 2015. Mini Courses are quarter-unit, workshop-like courses that are open to any student at TCNJ. Grading is on a Pass/Unsatisfactory basis, and credits earned contribute to students’ free electives. This allows students to dabble in something they might find interesting, allows alumni who have secured employment and are eager to share their experiences with current students an opportunity to do so, and allows IMM to rapidly evaluate new areas of curriculum. Students get to interact with instructors who come from a variety of backgrounds and units on campus, which increases the potential that they will find a new area of interest (another major or minor, or an internship). Inspired by our model, other departments on campus have also begun offering their own version of Mini Courses, and the model is promising for IMM’s future development certificate programs. Here is a list of the Mini Courses from just the past semester, with instructors in parentheses:

Spring 2019

- Casting 3D Printed Objects (IMM Alum Jack Frey)
- Animation Drawing (IMM Faculty Phil Sanders)
- 3D Texturing for Games (IMM Alum Chris Gollmer)
- Introduction to Interaction Design (IxD) (IMM Alum Kerrin McLaughlin)
- Sound Springs Eternal: Audio Installations for the TCNJ Art Gallery (IMM Faculty Teresa Nakra)

Highlights since the Mini Courses first ran in Fall 2015

- File Management and Version Control (i.e. The Github Class) (IMM Faculty Josh Fishburn)
- Kinetic Origami (IMM Alum Evan Zodl)
- Networked Plants (IMM Faculty Chris Ault and John Kuiphoff)
- Front End Javascript Frameworks (IMM Alum Matt Newman)
- Intro to Electric Guitar Building (TCNJ Technical Support Specialist Floyd Cosper)
- Composing Ambient Soundscapes for AIMM Spaces (IMM Faculty Teresa Nakra)
- Entrepreneurship & D.I.Y. Careers in the Arts (Music Adjunct Faculty Michael Newman)

- Comedy Writing (Elementary and Early Childhood Education Faculty Tabitha Dell'Angelo)
- Fundamentals of Digital Compositing (IMM Alum Sorraya Brashear-Evans)
- Data Visualization through 3D printing (IMM Alum and AIMM Technical Coordinator Brett Ratner)

Special Topics Courses

Along with Mini Courses, special topics courses are an essential aspect of the IMM culture that allow us to respond to developments in the uses of technology. Here are just a few from the last three years:

- IMM 170 History of Innovation (planned as a permanent course in our new curriculum)
- IMM 270 Design of Playful Experiences in Augmented Reality (AR)
- IMM 270 Digital Fabrication (planned as a permanent course in our new curriculum)
- IMM 270 Speaking with Confidence (grew out of a Mini Course)
- IMM 270/MUS 270 Scoring for Interactive Media
- IMM 270 Game Studies and Design (planned as a permanent course in our new curriculum)
- IMM 370 Technology and the Experience of Place
- IMM 470 Designing Creative Spaces
- IMM 470 Designer Notes from Fred Rogers (also represented in the “Field Experiences” section below)

Excellence in teaching - Field Experiences

Our faculty have put significant time and energy into providing high-quality field trips for our students. Here are some memorable examples from the past few years:

1. CUNY Games Conference (January 2019) Josh Fishburn took former MUSE students to NYC to present a project that he continues to work on jointly with Yifeng Hu in Communication Studies.
2. Fred Rogers Center (October 2018) IMM Adjunct Professor Warren Buckleitner and Josh Fishburn and a group of adventurous students from IMM 470 – The Methods of Fred Rogers – made a field trip to Fred Rogers’ childhood home in Latrobe, PA for a first-person look at the original Mr. Rogers’ neighborhood. The visit was made with the cooperation with the Fred Rogers Center at St. Vincent College, where Dr. Buckleitner serves as a Senior Fellow. Students had a chance to presented Fred-inspired design projects to the staff.
3. Escape Room (Summer 2018) John Kuiphoff took a group of Independent Study students to a local Escape Room to do research for their collaborative project. Prof. Kuiphoff and the students then designed, fabricated, installed and hosted a series of Escape Room experiences themed around the Spanish Flu.
4. Etsy and Red Nucleus (Fall 2017) Chris Ault took his IMM 470 (Creative Spaces) students to Etsy’s NYC headquarters and Red Nucleus in Yardley, PA to study office design.
5. Boston Pops (May 2017) IMM student Jillian Festa (‘18) was invited to serve as a technical assistant to Teresa Nakra as she presented her work in rehearsal and concert with the Boston Pops. The student had an opportunity to connect with several industry leaders on trip.
6. Spotify Hackathon (Fall 2015) Teresa Nakra took the Audio Signal Processing class to Spotify NYC headquarters to attend the Monthly Music Hackathon.

Department Impact - Trenton

In the past few years and through many campus fora, it has become clear that many residents of Trenton and surrounding areas, particularly those in the African-American community, feel unwelcome on our campus. For this section, we suggest that on one hand our impact is local because we focus on the local community, but on the other hand our impact is far beyond local in that visitors to TCNJ and the surrounding community see the fingerprints of IMM on many significant projects. Recently, IMM faculty have been involved in two initiatives that have explicitly built bridges to the Trenton community. Ongoing collaborations with institutions in Trenton and past projects related to Trenton are also highlighted in this section.

First, Teresa Nakra and Kim Pearson (Associate Professor of Journalism and Professional Writing, affiliate IMM faculty, and one of the founders of IMM) have been collaborating since 2015 on a project called *Trenton Makes Music*. *Trenton Makes Music* is a collaboration between The College of New Jersey and the Trenton community to document the contributions of Trenton musicians to the music industry, and the role of music in the evolution of Trenton's cultural and economic development. This project began with a summer MUSE project and has become an important initiative connecting TCNJ to the Trenton community. During Fall 2016, Nakra and Pearson produced four public events that included collaborations with the Trenton Central High School Orchestra, panel discussions with local experts on the history of music in Trenton, and recognition of the great teachers who empowered Trenton youth through music. *Trenton Makes Music* was also a special topics course (cross-listed in Journalism and Music) that involved students in research, audio recording, podcast production, writing, and web design. Nakra and Pearson also produced the Fall 2018 performance by renowned Trenton musician Michael Ray and the TCNJ Jazz Ensemble. These public events not only recognized the Trentonians who helped produce Sarah Dash, Michael Ray, and other important musicians; they also welcomed those residents to campus to share and celebrate their stories.

Second, John Kuiphoff, in collaboration with Rob McGreevy (Professor of History who, along with his students, shined a light on the racist past of the namesake of TCNJ's Loser Hall), was invited to research, design, and develop a gallery exhibit throughout Trenton Hall that documents the historical and contemporary relationship between Trenton and what is now TCNJ. This exhibit, concurrent with the official renaming of Loser Hall to Trenton Hall, was part of TCNJ's renewed efforts to integrate its relationship with Trenton, Ewing, and its history, and in response to recommendations made by the President's Social Justice Commission. Prof. Kuiphoff worked with students in IMM and History to scan and restore photographs and video from the college archives and designed a series of eight vinyl printed panels containing selected stories from the collection.

In 2012, Chris Ault reoriented one of the major's core courses — *Design Perspectives for Interactive Multimedia* — toward the production of real-world media and technology projects that would benefit community partners in Trenton. The course has collaborated with a number of partners over the years, including the Trenton Downtown Association, the Trenton Division of Planning, the New Jersey Attorney General's office, the Trenton Area Soup Kitchen, the African American Cultural Festival, and most recently the I Am Trenton Community Foundation. With the support of Assistant Provost Pat Donohue as well as the Trenton Downtown Association, Ault helped envision and develop TCNJ TrentonWorks, a downtown office space that opened in 2014 and served as a central hub for Trenton-related design projects and internships, as well as community classes, screenings, exhibitions and more.

Projects from the *Design Perspectives* course range from mobile apps to web sites to interactive art installations and documentary videos. Recently, the course inspired a promising collaboration the Trentoniana collection in the downtown Trenton Library. Under the guidance of Ault and Warren Buckleitner, IMM students have been working to digitize many of the historical assets in the collection, ranging from historical documents and physical artifacts to photographs, film, etc. Through a touchscreen kiosk in the library, users will be able to manipulate virtual versions of 3D objects, listen to sheet music from hundreds of years ago, scroll through employee cards from factory workers, and more. The platform of the touchscreen app will allow for customized variants featuring content curated to the interests of particular audiences. For example, the app is integral to an outstanding grant application with the National Endowment for the Humanities — a multidisciplinary collaboration with Rob McGreevey from the Department of History and Ann Warner-Ault from the Department of World Languages and Cultures — that will catalog and present oral histories related to the city's Latino and African American communities in the 1950s.

Department Impact - Other Activities

One of the ways in which we develop community and build impact beyond our department is by inviting eminent speakers with whom we maintain ongoing relationships, including Douglas Rushkoff, Marvin Minsky, Jesse Schell, Ken Perlin, Daniel Shiffman, Lon Van Eaton, et al. Dr. Nakra has also been collaborating with the Sarnoff Collection and partnered on an event called *Pioneering Play: Women in Game Development & Design* in April 2018. This panel discussion brought together three important women from the history of computer games: Margaret Minsky

(researcher on educational technology and human-computer interaction), Cynthia Solomon (former director, Atari Cambridge Research, and expert on educational computing), and Joyce Weisbecker (first indie video game developer). We strongly encourage our students to meet and talk with these visiting scholars and actively organize luncheons and teas with the speakers. Finally, for the past four years, Josh Fishburn has served as organizer for TCNJ's Global Game Jam (GGJ) site. The Global Game Jam is a 48-hour game creation marathon that is open to beginners and experienced game developers and designers alike. It is also highly collaborative, requiring that participants form teams to complete their game projects (a theme is unveiled at the beginning of the event).

Student involvement - Student Organizations

IMM students participate in several organizations that help them enhance and supplement the skills they learn in the classroom. Some organizations present tutorials by students and visiting experts, as well as peer mentoring and collaboration in teams – modeling our curriculum and covering supplementary course topics in greater depth.

1. TCNJ Game Design (Josh Fishburn, advisor) is for students interested in game design “to meet, share ideas, learn, and work on projects with their peers”. The club members meet regularly to discuss game design and development, collaborate with other student organizations like SIGGRAPH and AMPD for events like the October Haunted Hallway, and offer tutorials open to anyone on game-related technologies.
2. ACM SIGGRAPH (Phil Sanders, advisor) members discuss and collaborate on animation, video, games and everything in between. Weekly meetings include student run tutorials.
3. AMPD, or the Association for Music Production and Discussion (Teresa Nakra, advisor), is a group of students enthusiastic about music -- playing and producing it. AMPD has access to recording studios on campus and hosts a concert every semester, showcasing TCNJ's very own musical talent.
4. CGC - Competitive Gaming Club (Josh Fishburn, advisor) organizes regular tournament that attract regional competitors for popular competitive games like Overwatch and Super Smash Bros.

Student involvement - Alumni

1. Many alumni return to campus for the annual IMM Senior Showcase, some as invited panelists for the annual career panel that runs as part of the showcase.
2. Our alumni generously make themselves available to current seniors, providing consultations and feedback on their projects (usually remotely over Skype).
3. A significant number of alumni have now returned to teach IMM Mini Courses, which often result in internship and/or mentoring between alumni and current students.
4. Roughly 5-10 alumni return each year to participate in the Global Game Jam.

Student involvement - Mentored Research

Most recently, in the Summer of 2018, Josh Fishburn worked with two students and Dr. Yifeng Hu from the Department of Communication Studies on a project entitled “Innovative Interdisciplinary Faculty-Student Collaboration on Game-Based Alcohol Intervention.” The work on this project is ongoing, with support from student affairs collaborators to replace the current alcohol education program with our story-based video game. Students remain involved through Independent Study, and Prof. Fishburn has applied for MUSE funding with two of those students for the summer of 2019. In summer 2017, Fishburn worked with two IMM majors on the “Technological Foundation for Prototyping Lightweight Networked Art Games” project, which was funded by the MUSE program. His team created three lightweight multiplayer game prototypes that were focused on poetic player interactions in a real-time online environment. Finally, *Trenton Makes Music*, mentioned earlier, began as a collaborative project funded through the MUSE 2017 program that included three student collaborators and evolved into a course the following fall. It continues to produce events that include roles for students as collaborators and production assistants.