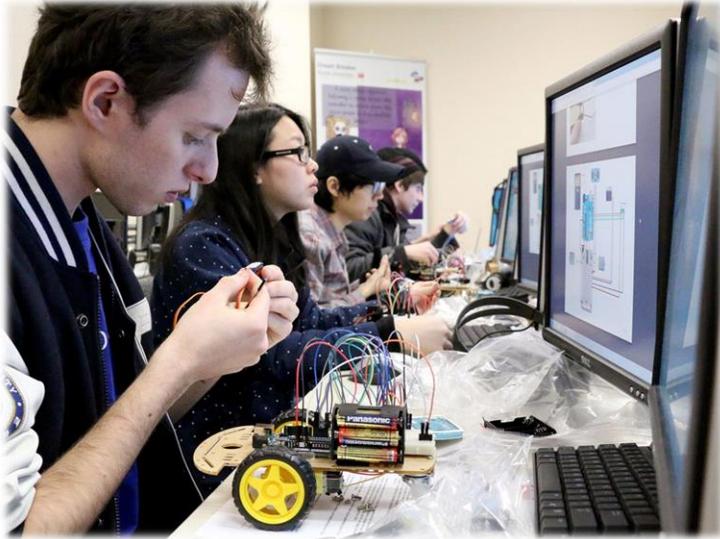


**Brock**



# IASC

**Learn. Build. Innovate.**

**Interactive Arts & Science  
Program Handbook  
2022 - 2023**

# Table of Contents

<b>TABLE OF CONTENTS</b>	<b>2</b>		
<b>1. WELCOME</b>	<b>4</b>		
Welcome from the Director	4		
About this Handbook	5		
Personnel and Program Support	5		
<b>2. PROGRAM OVERVIEW</b>	<b>6</b>		
The IASC Program	6		
Career Opportunities	6		
Advice from an IASC Graduate	7		
Guiding Questions	7		
Example Topics	8		
Program Pathways	9		
Concentrations	9		
Experiential Education in the IASC Program	10		
<b>3. PROGRAM FLOW</b>	<b>11</b>		
Overview	11		
Year 1	11		
IASC 1F01 - Foundations of IASC		11	
IASC 1F02 - Being Human in a Digital World		12	
			<b>Year 2</b>
			IASC 2P01 - Foundations of Project Management
			IASC 2P02 - Solving Problems through IASC
			IASC 2P03 - Interaction and Interface Design
			IASC 2P06 - 3D Objects, Environments and Visualization
			IASC 2P08 - Competencies in IASC
			<b>Year 3</b>
			IASC 3F02 - Interactive Media Practices, Prototyping and Production
			IASC 3P97 – Interactive Media Portfolio
			<b>Year 4</b>
			IASC 4L00 - Collaborative Practicum in Interactive Media Design and Production
			IASC 4F01 – Honour’s Thesis
			<b>4. PROGRAM OUTCOMES</b>
			Overview
			1. Foundational Knowledge
			2. Transferable Skills
			3. Creativity
			4. Intrapersonal
			5. Communication
			6. Collaboration
			7. Project Management
			8. Career Preparedness
			9. Digital Expression (Concentration)
			10. Digital Prototyping (Concentration)
			11. Digital Scholarship (Concentration)

12. Instructional Design (Concentration)	17	Directed Studies and Directed Project Courses	22
The Joyce Lucey Award	17	<b>APPENDIX A: BROCK POLICIES</b>	<b>24</b>
<b>5. FACILITIES AND TECHNOLOGIES</b>	<b>18</b>	Academic Integrity Policy	24
Overview	18	Academic Accommodation Policy	24
Interactive Media Lab (TH269H)	18	Medical Exemption Policy	24
Interactive Media Lab - Quiet Space (TH269K)	19	Additional Information	24
Fourth Year Production Studio (TH269G)	19	<b>APPENDIX B: BROCK LINKS</b>	<b>25</b>
Fourth Year Production Studio (TH269A & TH269B)	19		
Interactive Media Teaching Lab (TH269J)	20		
Seminar Rooms (TH269C)	20		
Bookable Technologies	20		
Makerspace Technologies	20		
<b>6. PROGRAM OPTIONS</b>	<b>21</b>		
Overview	21		
BioLinc Startups	21		
Minor in Business	21		
APCO Courses	21		
Internships	21		
Courses at Other Universities	22		
Brock University Design Studio	22		
Cross-listed Courses	22		

# 1. Welcome

## Welcome from the Director

Welcome to Brock and the Interactive Arts & Science program.

You have chosen a program that is dynamic and forward looking. Over the next few years you will pursue both theoretical and applied studies as you work collaboratively with others on a diverse array of interactive media projects.



The IASC program is as much about ‘doing,’ as it is about ‘learning.’ Hence, the program motto: Learn. Build. Innovate. The IASC program is also about peering into the future, anticipating what might lie ahead for digital media and understanding its impact on how people live, learn, work, and have fun.

Throughout your studies, should you wish to meet with me to discuss how the IASC program can help you achieve your academic and career goals, please don’t hesitate to get in touch.

Jason Hawreliak  
Director, Centre for Digital Humanities  
jhawreliak@brocku.ca

## About this Handbook

This handbook will help you navigate the IASC program which provides students with a lot of flexibility and choice. The following chapters provide:

- a **program overview** (Chapter 2);
- a description of the year-by-year **program flow** with particular attention to the core courses (Chapter 3);
- a list of the **program outcomes** which you should endeavour to work towards (Chapter 4);
- information about the **facilities and technologies** that you can access (Chapter 5);
- an overview of the diversity of **program options** that you can choose to pursue (Chapter 6).

In addition to familiarizing yourself with the contents of this handbook, you should also review the Interactive Arts & Science entry in the Undergraduate Calendar ([brocku.ca/webcal](http://brocku.ca/webcal)) which formally outlines the program requirements.

As noted above, meeting with the IASC program's Academic Advisor during your first year at Brock is also recommended.

## Personnel and Program Support

The personnel in the Centre for Digital Humanities (CDH) are people to whom you can turn for support. You will be introduced to the CDH administrative staff early on in your first year. The CDH website ([brocku.ca/cdh](http://brocku.ca/cdh)) also lists their names, roles, and contact information and included below is a quick summary of support and information assistance available.

Contact our **Administrative Assistant, Clara Suba** ([csuba@brocku.ca](mailto:csuba@brocku.ca)), often available at the CDH reception desk at TH 269 D for questions about:

- course registration details or overrides;
- room bookings;
- classroom support and equipment sign-out;
- general program information.

Contact our **Technical Associate, Tom Brown** ([tbrown2@brocku.ca](mailto:tbrown2@brocku.ca)), whose office is in TH 269 E, if you have ideas or questions about:

- computer lab administration;
- available software, tools and services;
- research opportunities;
- back-end project management and IT support.

Contact our **Project Coordinator, Jeremy Leipert** ([jleipert@brocku.ca](mailto:jleipert@brocku.ca)), whose office is in TH 269 F, should you have suggestions or questions about:

- professional development events and workshops;
- experiential learning and internships;
- community partnerships and professional outreach;
- front-end project management.

Keep in mind you are always welcome to reach out to Jason Hawreliak ([jhawreliak@brocku.ca](mailto:jhawreliak@brocku.ca)) the Director of the CDH, for academic matters and we encourage you to contact Elizabeth Maddeaux ([rmaddeaux@brocku.ca](mailto:rmaddeaux@brocku.ca)) for regular academic advisement. Additionally, we maintain a regular Sessional Instructor's office at ST 104A for meeting with your non-faculty educators.

We are all here to help you get the most from your IASC experience and happy to assist you.

## 2. Program Overview

### The IASC Program

Interactive Arts & Science is a unique interdisciplinary program at Brock. The program prepares the next generation of digital media innovators and scholars. You'll focus on the intersection of interactive technologies and the humanities — gaining new digital media creation skills along the way.

Among the highlights of the IASC program:

- a focus on the future of technology;
- a combination of academic scholarship and applied, hands-on experience;
- an intermixing of students with diverse talents (e.g., computer programming, creative writing, and visual arts);
- individualized programs of study in which IASC students largely determine their own program pathways;
- many opportunities to collaborate with others on joint projects;
- opportunities to take courses taught by academic faculty and industry professionals;
- optional internship placements in digital media companies;
- preparation for careers in interactive media and further academic studies (e.g., graduate degrees).

### Career Opportunities

The IASC major program was established in 2006. Since then, graduates of the program have pursued a wide range of careers, including:

- 3D Modeler and/or Animator
- Digital Tools Specialist
- Entrepreneur
- Game Designer
- Graphic Artist
- Interactive Fiction Writer
- Multimedia/Web Designer
- New Media Scholar
- Software Developer
- Project Manager/Producer
- User Experience Designer
- etc.

## Advice from an IASC Graduate

In preparing this handbook, we turned to an IASC graduate to provide advice to current students.

Dylan Thomas Pineo is a 2017 IASC graduate. As the Centre for Digital Humanities' Joyce Lucey award winner in his graduating year, Dylan was the Lead Designer on the award-winning IASC Joustaposition video game and the Niagara Military Museum's escape room project titled "Until Death do us Part...", in partnership with Brock's Dramatic Arts department. Within a month of graduating, Dylan was employed as a freelance Level Designer and full-time 3D Artist. Dylan currently works in the Brock Library Makerspace.

Dylan writes that "going to university was equal parts the most terrifying and incredible decision I have made to date. When I look back at who I was at the beginning of my time at Brock I hardly recognize myself. Going to university is going to be stressful. It will also reward you not only with academic knowledge, but unforgettable memories with friends, colleagues, and professors that will last a lifetime.

When you begin your journey, everything at first may feel overwhelming. Assignments may feel like they are stacking up, your time may feel like it is disappearing, and you might even get lost along the way. I am very pleased to say that at Brock, and in the IASC program itself, there are support networks for every single one of these challenges.

Through my time in the IASC program, I spent countless hours engaging in music and sound composition and editing, video creation and editing, and developing design projects; all within industry standard toolkits. Before I knew it, my fourth year was completed. I could look at what my peers and I had accomplished in our time here with pride.

I sincerely encourage you take advantage of as many opportunities as you possibly can. If you see a club that interests you, go to their meetings. If you see an extra-curricular workshop that interests you, check it out. If you are interested in a professors' work; get in touch with them and ask them about it. I promise they will be excited to share their passion for interactive media with you.

When you graduate from the IASC program, you will join an interactive media community that is eager and interested to see just what you can do."

## Guiding Questions

IASC is designed for future-oriented students who think 'outside the box' about a wide range of questions, such as:

### *The humanities in a digital world...*

What will technology look like in the future?

How will all the information on the Internet be archived and preserved?

How has writing been transformed in the digital age?

How will we interact with maps in the future?

What will libraries look like 20 years from now?

How can massive data sets be visualized in creative ways?

How have emerging technologies changed the human experience?

How does digital scholarship intersect with my area(s) of academic interest?

### *Interactive media skills...*

How can I develop new skill proficiencies with digital tools?

How can I build a portfolio of work that showcases my skills to potential employers?

How can I employ interactive media tools in my academic research?

How can I use digital production tools to achieve my creative goals?

How can I develop new digital tools to support the work of others?

### *Collaborating with others...*

How can I collaborate with others on joint multimedia and academic projects?

What are the most effective practices for managing team-based projects?

How can I build and contribute to an online community of scholarship?

Throughout the IASC program, you will complete a diverse array of courses that each focus on a subset of these questions (and many others). You will be challenged to think deeply about these questions, purposefully applying what you learn to your academic studies, applied project work and collaborations with others.

### **Example Topics**

Throughout the IASC program, there will be ample opportunities to explore a diversity of topics. The list below is by no means exhaustive, but it does point to the wide range of interactive media that are addressed in the IASC program:

- augmented and virtual reality
- creative coding (e.g., hacking, circuit bending, and exploratory use of code)
- digital archiving (e.g., repositories)
- digital museum exhibits
- digital publishing, communities of practice, and knowledge exchanges
- digital tools that support academic research
- hardware prototyping
- instructional design
- locative and mobile media
- multimedia and Web-based projects
- new forms of interactive narrative
- programming and the manipulation of data
- simulations and visualizations (e.g., modeling, walkthroughs, and imagined worlds)

## Program Pathways

The Interactive Arts and Science program can be completed as:

- a four-year BA Honours degree
- a three-year BA Pass degree
- a Combined Major (Pass or Honours)
- a Minor

For specific details about the program requirements for the Combined Major and Minor pathways, please consult the IASC entry in the Undergraduate Calendar ([brocku.ca/webcal](http://brocku.ca/webcal)).

The IASC program is designed to accommodate the needs of all students, whether you are focusing solely on IASC, combining IASC studies with another Major, or taking a few IASC courses towards a Minor or as part of another Brock program.

## Concentrations

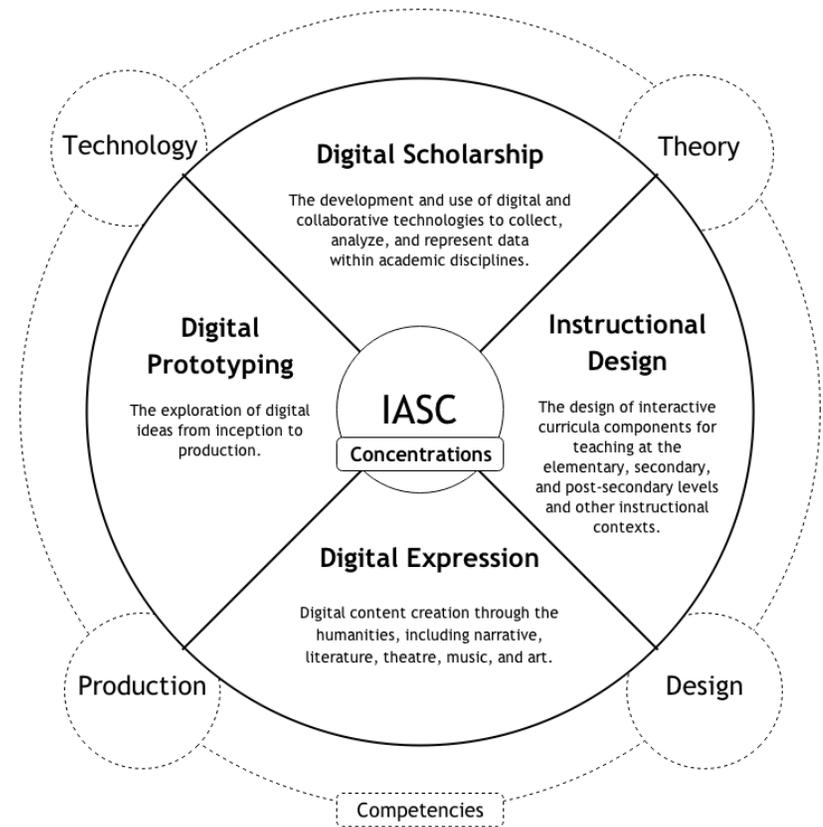
The IASC Honours degree program (including the Combined Major option) supports four concentrations (see figure).

A concentration is a specific topic area to which a cluster of courses contribute content.

As an IASC student you can choose to complete the equivalent of six (or more) full credits from the courses that are attached to one of the four concentrations (as listed in the IASC entry in the Undergraduate Calendar). Should you declare a concentration, your IASC Honours degree will note the concentration you focused on.

For example:

*Bachelor of Arts (Honours) with a Concentration in Digital Prototyping*



Below are the four IASC program concentrations:

- **Digital Expression:** Digital content creation through the humanities, including narrative, literature, theatre, music, and art;
- **Digital Prototyping:** The exploration of digital ideas from inception to production;
- **Digital Scholarship:** The development and use of digital and collaborative technologies to collect, analyze, and represent data within academic disciplines;
- **Instructional Design:** The design of interactive curricula components for teaching at the elementary, secondary, and post-secondary levels and other instructional contexts.

Two of the above concentrations may be of particular interest to students who are pursuing Combined Majors.

The Digital Expression concentration connects the IASC program to other Humanities disciplines in artistic ways (e.g., English, Dramatic Arts, Music, and Visual Arts).

The Digital Scholarship concentration explores the important roles digital tools play in helping scholars achieve their academic goals in a variety of disciplines (e.g., History, English, Geography, Philosophy, Popular Culture, Psychology, and Sociology).

Pursuing a concentration is optional. However, you might find it helpful to do so in order to structure your studies. As noted above, the IASC program supports highly individualized programs of study in which you can largely determine your own personalized program pathway. Pursuing one of the four available concentrations is one way to organize your studies.

## Experiential Education in the IASC Program

Through the IASC program, you will have opportunities to connect directly with interactive media designers, industry personnel, and knowledge specialists, coupled with hands-on opportunities to engage in experiential learning.

Below is a brief overview of the kinds of experiential opportunities you can look forward to:

- **Competencies in IASC (IASC 2P08):** A half credit course in which you choose the professional development events you attend for course credit;
- **Brock University Design Studio (BUDS):** Cross-disciplinary student teams working with external sponsors on innovative, real-world projects;
- **Interactive Media Fair:** An interactive media showcase and networking event designed to promote student work. Opportunities to connect with industry professionals.;
- **Capstone Project:** With industry consultation, 4<sup>th</sup> year students use state-of-the-art development tools and project management practices in a mock studio environment to deliver an interactive media prototype for public showcase;
- **Internships:** Unpaid 80-hour work placements and paid 400 hour (full-term) placements with professional practitioners in the interactive media sector;
- **Project-based Learning:** courses offering hands-on experience with motion capture, 3D modeling, video production and makerspace technologies.

## 3. Program Flow

### Overview

The IASC program is purposefully designed to scaffold learning over your three or four years in the program. Each year you will complete core courses, along with other IASC students, and elective courses that will often include a mix of IASC and other Brock students.

As the IASC program is interdisciplinary, some of the courses you complete will be cross-listed with other academic departments at Brock, offering you the chance to get to know students outside the IASC program.

Most of your courses will be taught in small groups, but there will also be a few large enrolment and online courses.

Year 1 is an introduction to the IASC program and the study of interactive media and the digital humanities. Year 2 focuses on competency development in the skill and topic areas that are aligned with the four concentrations:

- Digital Expression
- Digital Prototyping
- Digital Scholarship
- Instructional Design

Year 3 focuses on strategies for successfully collaborating on interactive media projects. There is also an opportunity to showcase what you have learned in the IASC program. For those who are completing the Honours program, Year 4 centres around a collaborative interactive media project that you will plan from inception to release with other upper year students.

As noted below, each year of the IASC program focuses on a driving question. As you progress through the program, keep the current year's question in mind, reflecting on how it is meaningful to you, both in terms of your academic studies, but also thinking ahead to your career plans.

### Year 1

Driving Question: *What is possible in interactive media?*

In the first year of the program, the introductory *IASC 1F01 - Foundations of Interactive Arts and Science* core course surveys the four concentrations from both a conceptual and applied, hands-on perspective. You will begin to build your skillset in each of four areas: Theory, Technology, Design, and Production. You will also begin work on a personal interactive media portfolio that you will continue to develop throughout the IASC program.

Below are the Year 1 program requirements, followed by the course descriptions for the two core courses:

- IASC 1F01 - Foundations of Interactive Arts and Science
- IASC 1F02 - Being Human in a Digital World
- one IASC credit numbered 1(alpha)00 to 1(alpha)99
- one Sciences context credit
- one Social Sciences context credit

#### IASC 1F01 - Foundations of IASC

Conceptual frameworks for interactive media technology, design, theory and production. Focus on digital scholarship, expression, prototyping, and instructional design. Practice-based projects leading to the development of an interactive media product.

**IASC 1F02 - Being Human in a Digital World**

Exploration of how emerging technologies shape human identities and lifestyles. Impact of rapid technological change on citizenship, education, employment, entertainment, globalization, health, privacy and security. Predictions of what the future may hold and its implications for the human condition.

Note: IASC 1F02 is a large enrolment online course which serves as your Humanities context credit.

**Year 2**

Driving Question: *How can I develop my competencies with interactive media?*

In the second year of the program, you will complete core courses that focus on specialized topic areas. Each course focuses on a specific competency which is drawn from one of the four concentrations, but which is also applicable to the other concentrations.

Below are the Year 2 program requirements, followed by the course descriptions for the five core courses:

- IASC 2P01 - Foundations of Project Management (drawn from the Digital Prototyping concentration)
- IASC 2P02 - Solving Problems through Interactive Arts and Science (drawn from the Digital Scholarship concentration)
- IASC 2P03 - Interaction and Interface Design (drawn from the Instructional Design concentration)
- IASC 2P06 - 3D Objects, Environments and Visualization (drawn from the Digital Expression concentration)

- IASC 2P08 - Competencies in Interactive Arts and Science
- one and one-half IASC credits numbered 2(alpha)00 to 3(alpha)99
- one elective credit

**IASC 2P01 - Foundations of Project Management**

Professional strategies for planning and managing projects from inception to closure. Managing risks and constraints. Promoting collaboration and communication. Time management strategies for individuals and project teams. Solutions to common project management challenges. Introduction to project management software and organizers.

**IASC 2P02 - Solving Problems through IASC**

Role of digital tools in addressing scholarly questions in the humanities. Case studies, current trends and critical debates.

**IASC 2P03 - Interaction and Interface Design**

Composition and interface design for reactive and interactive systems. Layout, graphics and media tools for user interface design. Models for how interactivity shapes understanding and expectations of digital media tools and interfaces.

**IASC 2P06 - 3D Objects, Environments and Visualization**

Introduction to concepts and tools for 3D modeling, texturing, lighting, cameras, and navigation for the production of virtual spaces and mixed-reality environments. Contemporary perspectives on the simulation and representation of 3D spaces in a humanities context. Introduction to 3D scanning and printing.

**IASC 2P08 - Competencies in IASC**

Workshops, conferences, networking events, volunteer opportunities and other experiences related to the Interactive Arts and Science program.

The last course above - IASC 2P08 - is unique in that it will enable you to apply 30 accumulated hours of IASC-related non-course studies for credit. This could potentially include workshops, conferences, networking events, volunteer opportunities, and other experiences that extend your learning beyond more traditional coursework.

To complete this course, you will be asked to track and collect evidence for the non-course studies you engage in.

In order to help you accumulate the required 36 hours of non-course experience, the Centre for Digital Humanities will offer workshops throughout the year, but you will also be encouraged to attend conferences, workshops, presentations, maker faires, hackathons, and other events that are internal or external to Brock. Each can count toward course credit.

**Year 3**

Driving Question: *How can I demonstrate my competencies with interactive media?*

In the third year of the program, you will apply the knowledge and skills you have learned in Year 2 to the collaborative design of an interactive media product. You will also showcase your growing interactive media competencies by completing work on the interactive media portfolio that you have been developing since Year 1.

Your opportunities for inclusion in community partner events, hosted workshops and project-based skills development classes increase and expand in your 3<sup>rd</sup> year in IASC, offering further practical experiences in which to apply your education.

Below are the Year 3 program requirements, followed by the course descriptions for the two core courses:

- IASC 3F02 - Interactive Media Practices, Prototyping and Production
- IASC 3P97 - Interactive Media Portfolio
- two and one-half IASC credits numbered 2(alpha)00 to 3(alpha)99
- one elective credit

**IASC 3F02 - Interactive Media Practices, Prototyping and Production**

Concepts, design, and best practices in the development of an interactive media object. Professional project management strategies for production in a team environment.

**IASC 3P97 - Interactive Media Portfolio**

Cumulative portfolio that presents and reflects upon individual and team work (process and completed productions) developed through the Interactive Arts and Science program.

## Year 4

Driving Question: *What can I accomplish in collaboration with others?*

In the fourth year of the program, IASC students who are pursuing an Honours degree will either collaborate on a team-based interactive media project or a thesis component. Students will also pursue advanced studies in their areas of developing expertise.

Below are the Year 4 program requirements with the team-based interactive media project, followed by the course description for the 2.0 credit core course, IASC 4L00:

- submit application for 4<sup>th</sup> year honours classes (found on Brock Registrar's Website)
- IASC 4L00 - Collaborative Practicum in Interactive Media Design and Production
- two IASC credits numbered 3(alpha)90 or above
- one elective credit

### IASC 4L00 - Collaborative Practicum in Interactive Media Design and Production

Planning and production of a collaborative interactive media project.

Below are the Year 4 program requirements with the thesis component, followed by the course description for the 1.0 credit core course, IASC 4F01:

- submit application for 4<sup>th</sup> year honours classes (found on Brock Registrar's Website)

- IASC 4F01 - Honour's Thesis
- two IASC credits numbered 3(alpha)90 or above
- two elective credit

### IASC 4F01 - Honour's Thesis

Thesis on a topic of mutual interest to the student and the instructor. Textual document which may or may not include a digital component.

## 4. Program Outcomes

### Overview

The program outcomes below, grouped into twelve competency areas, are the degree level expectations for the IASC program. Each core course in the IASC program addresses a subset of the program outcomes below (plus additional course outcomes that are specific to the course).

It is important that you familiarize yourself with the IASC program outcomes and come to see them as benchmarks to strive towards.

The last four program outcomes - Digital Expression, Digital Prototyping, Digital Scholarship, and Instructional Design - are drawn from the IASC concentrations.

### 1. Foundational Knowledge

- 1.1 Demonstrates a familiarity with the diverse array of contexts in which digital media is situated (e.g., philosophical, cultural, and economic);
- 1.2 Applies the principles of aesthetics and design to art and interactive media project work;
- 1.3 Demonstrates the ability to interpret standards, conventions, schematics, and common practices;
- 1.4 Understands the interconnectivities between visual/aural/haptic forms as they contribute to artistic practices.

### 2. Transferable Skills

- 2.1 Demonstrates strong higher order thinking skills (e.g., analysis, synthesis, and evaluation);
- 2.2 Critically evaluates the quality of information and resources;
- 2.3 Develops coherent arguments to support specific points of view;
- 2.4 Articulates multiple perspectives related to controversial issues;
- 2.5 Employs a diverse technical skillset with one or two specializations;
- 2.6 Produces technical and user documentation;
- 2.7 Honours copyright and fair usage laws. Credits others as appropriate.

### 3. Creativity

- 3.1 Demonstrates the ability to think divergently and 'out of the box';
- 3.2 Demonstrates an openness to new ideas and ways of doing things;
- 3.3 Demonstrates an entrepreneurial spirit within academic, creative arts, and/or business contexts.

### 4. Intrapersonal

- 4.1 Is self-motivated, well organized, and dependable;
- 4.2 Exhibits a high degree of self-efficacy;
- 4.3 Learns from one's successes and failures;
- 4.4 Demonstrates a future oriented mindset;
- 4.5 Demonstrates a sensitivity to diverse contexts (e.g., cultural and ability level).

## 5. Communication

- 5.1 Demonstrates strong oral, written, and digital literacy skills;
- 5.2 Communicates complex ideas clearly and concisely;
- 5.3 Communicates effectively across disciplinary boundaries;
- 5.4 Demonstrates a proficiency with multimodal communications;
- 5.5 Effectively engages audiences when public speaking;
- 5.6 Effectively uses online media and design tools to communicate ideas.

## 6. Collaboration

- 6.1 Works collaboratively with others (e.g., undergraduate/graduate students, professors, and librarians);
- 6.2 Provides and invites constructive feedback;
- 6.3 Actively participates in online participatory cultures.

## 7. Project Management

- 7.1 Effectively applies business and project management principles to the execution of projects (e.g., time and risk management, project scoping, and quality control);
- 7.2 Produces project and business plan proposals;
- 7.3 Conducts market and needs analyses in support of project planning;
- 7.4 Produces project timelines/schedules with embedded milestones;
- 7.5 In collaboration with others, secures the expertise and resources needed to achieve project goals;
- 7.6 Establishes criteria for assessing project success;

- 7.7 Endeavours to meet the expectations of project sponsors;
- 7.8 Demonstrates a responsiveness to user testing and feedback;
- 7.9 Is able to multi-task and manage multiple projects simultaneously.

## 8. Career Preparedness

- 8.1 Is forward thinking, resourceful, and self-reflective in terms of one's academic and professional growth;
- 8.2 Critically reflects on one's learning in the IASC program;
- 8.3 Builds a personalized IASC program pathway in support of one's academic and professional goals;
- 8.4 Invests in learning opportunities outside of the IASC program;
- 8.5 Builds a professional portfolio which showcases one's accomplishments in the IASC program.

## 9. Digital Expression (Concentration)

- 9.1 Produces discipline-based design documents;
- 9.2 Uses production tools to create discipline specific digital artifacts (e.g., text, images, 3D objects, animation, audio, video, multimedia, apps, and games);
- 9.3 Creates coherent narratives for various media platforms (e.g., text, image, and video) and demonstrates a historical/contextual understanding of narrative theory (i.e., narratology);
- 9.4 Designs effective marketing plans and materials in support of completed projects (e.g., advertisements, press releases, testimonials, reviews, and social media promotion).

## 10. Digital Prototyping (Concentration)

- 10.1 Demonstrates a knowledge of common programming languages (e.g., C#) and basic computing concepts/modes of thinking (e.g., algorithmically, logically, modularly, and systemically);
- 10.2 Applies the principles of systems design to the contexts of physical computing/embedded systems/fabrication;
- 10.3 Develops working prototypes from inception to production;
- 10.4 Employs iteration and versioning concepts/processes.

## 11. Digital Scholarship (Concentration)

- 11.1 Demonstrates an understanding of the history and current issues related to digital scholarship (e.g., ethics, representation, and preservation);
- 11.2 Conducts literature reviews and consults with experts in order to deepen one's understanding of topics and issues;
- 11.3 Critically discusses discipline-based digital scholarship exemplars;
- 11.4 Demonstrates an in depth understanding of how the digital humanities is represented within an academic discipline (i.e., key concepts, theoretical perspectives, methodologies, and current advances);
- 11.5 Analyzes and critiques scholarly texts;
- 11.6 Drafts focused research and scholarly questions;
- 11.7 Employs a range of research methodologies related to a scholarly discipline;
- 11.8 Demonstrates an understanding of the importance of ethical review;

- 11.9 Effectively draws on quantitative and qualitative primary data;
- 11.10 Demonstrates a fluency with the diverse ways in which digital scholarship can be disseminated.

## 12. Instructional Design (Concentration)

- 12.1 Demonstrates proficiencies with a suite of multimedia and instructional design tools;
- 12.2 Effectively achieves learning goals through the integration of texts, multimedia, and interactive media;
- 12.3 Collaborates with subject matter experts;
- 12.4 Effectively translates educational goals through the principles of design;
- 12.5 Demonstrates a theoretical and applied understanding of usability principles;
- 12.6 Designs user interfaces that are functional, standards compliant, and attractive;
- 12.7 Designs instructional media that provides timely feedback to users and instructors;
- 12.8 Effectively applies the principles of instructional assessment and backwards design.

## The Joyce Lucey Award

Each year the Joyce Lucey Award is awarded to "an outstanding student majoring in Interactive Arts and Sciences in the Centre for Digital Humanities." Recipients are selected by faculty within the Centre for Digital Humanities.

(There is no application process.)

## 5. Facilities and Technologies

### Overview

As an IASC student, you can access a wide array of design and production facilities and digital technologies in support of your interactive media project work. Some of these facilities and technologies are maintained by the Centre for Digital Humanities (CDH) where the IASC and GAME programs are housed.

Other facilities and technologies are maintained by Brock University or the CDH's partners. They are available for shared use by IASC students as outlined below.



Photo: The CDH's Collaborative Production Lab for students (TH269H).

### Interactive Media Lab (TH269H)

The Collaborative Production Lab is our 24-hour student dedicated workspace. Fully renovated and updated in 2016, the lab includes the following features:

- Upgraded to 24 dual monitor workstations with uninterruptible power supplies and Wacom Intuos Pro tablets;
- All workstations are Windows 10, DirectX 12 capable with Nvidia Quadro video cards;
- Professional interactive media and design software from Adobe, Autodesk, Unity and more;
- State of the art mobile presenter console with 3 x 55" universally accessible HD displays;
- Multiple generations of playtesting and research video game consoles plus two HD widescreen televisions;
- Online accessible software version control repositories for student projects;
- Collaborative and configurable meeting and workspace areas integrated directly into the environment.

## Interactive Media Lab - Quiet Space (TH269K)

Similar to the Collaborative Production Lab, this quiet space is 24/7 accessible to IASC students. The lab serves as the scheduled studio space for BUDS. Quiet work and audio recording are given priority.



Photo: 4th Year Production Lab (TH269K)

This 24/7 access space offers:

- 7 dual monitor performance workstations with uninterruptible power supplies;
- Whisper Room professional recording booth with Mbox, ProTools, and cardioid dynamic microphone;

## Fourth Year Production Studio (TH269G)

The Fourth Year Production Lab, similar to the Collaborative Production Lab, is 24/7 accessible to IASC students in our senior practicum classes. The lab serves as the dedicated

studio space for IASC 4L00 and IASC 4F03 (GAME program). This 24/7 access space offers:

- 15 dual monitor performance workstations with uninterruptible power supplies;
- Mobile VR-ready workstation with Oculus Rift & HTC Vive support.
- Whiteboards and meeting tables.

## Fourth Year Production Studio (TH269A & TH269B)

The partitionable Fourth Year Production Lab, similar to the Collaborative Production Lab, is 24/7 accessible to IASC students in our senior practicum classes. The lab serves as the dedicated studio space for IASC 4L00 and IASC 4F03 (GAME program). This 24/7 access space offers:

- 15 dual monitor performance workstations with uninterruptible power supplies;
- Mobile VR-ready workstation with Oculus Rift & HTC Vive support.
- Whiteboard and meeting tables.

## Interactive Media Teaching Lab (TH269J)

This teaching lab, upgraded in 2020, features:

- Upgraded to 24 workstations with Nvidia Quadro RTX graphics cards and uninterruptible power supplies;
- Additional Laptop seating for group projects.
- Professional interactive media and design software from Adobe, Autodesk, Unity and more;
- 1080p Projector and HDMI laptop connector.

## Seminar Rooms (TH269C)

The CDH houses a multimedia seminar room that accommodates 25 participants. All of the tables and chairs are on castors, allowing the rooms to be reconfigured into various setups. The room is equipped with a PC, a region free DVD player, VCR, audio, two projectors, two screens, one document camera, three white boards, and dimmer lights.



Photo: CDH Seminar Room (TH269C)

## Bookable Technologies

CDH bookable equipment includes game capture hardware, microphones, video games, Wacom tablets, webcams and more. A portable Brock Connect teleconference system can be moved to different spaces within the CDH.

## Makerspace Technologies

The Makerspace provides hands-on access to emerging technologies and provides a collaborative learning space for all to play, learn, and invent. Located directly across from the Centre for Digital Humanities in the Rankin Family Pavilion. Students can access:

- 3D Printers
- Laser Cutters
- Robotic Kits
- Sound Production Tools
- Professional Software
- DSLR Cameras
- Arduino Kits
- Virtual Reality

<https://brocku.ca/library/makerspace/>

## 6. Program Options

### Overview

The IASC program is highly individualized and designed to maximize choice and flexibility so that you can tailor your program of study to match your own specific academic and career goals. In addition to completing the IASC program as a Combined Major or Minor with another academic discipline and/or organizing your program of study around one of the four IASC program concentrations, you may also wish to consider the following program options. Each will help you prepare for your choice of career and/or further academic study.

### BioLinc Startups

Do you have an entrepreneurial vision for a new interactive media business? If so, you may wish to investigate BioLinc's business residency program for student entrepreneurs ([brocku.ca/biolinc](http://brocku.ca/biolinc)). BioLinc is Brock's business startup incubator. It regularly holds events for budding entrepreneurs and also provides seed funding for student business start ups.

### Minor in Business

If you think you might be interested in starting your own company or pursuing a career in the world of business, you may wish to consider completing the IASC program along with a Minor in Business.

Review the Business entry in the Undergraduate Calendar ([brocku.ca/webcal](http://brocku.ca/webcal)) which formally outlines the requirements for the Minor in Business.

### APCO Courses

The Centre for Digital Humanities works in close partnership with the Department of Computer Science which offers the Applied Computing (APCO) program.

A number of APCO courses are cross-listed with the IASC program. Plan to include a selection of APCO courses in your program of study if you are interested in developing your programming and/or scripting skills in support of your interactive media project work.

Completing four APCO or Computer Science credits qualifies an IASC student for a Minor in Applied Computing.

Review the Interactive Arts and Science and Computer Science entries in the Undergraduate Calendar ([brocku.ca/webcal](http://brocku.ca/webcal)) which provide the course descriptions the APCO courses.

### Internships

In Year 3, you can elect to complete one of two internship experiences, both of which will help you gain on-the-job practical training working alongside industry professionals in the interactive digital media sector:

- 1) an 80-hour (unpaid) internship experience for 0.5 course credits
- 2) a 400 hour (paid) full-term internship for 1.5 course credits (limited availability)

Below are the course descriptions for the internships:

#### IASC 3P95 - Internship in Interactive Media

Part-time internship in a business related to interactive media or the gaming industry.

#### IASC 3F95 - Advanced Internship in Interactive Media

Full-time internship in a business related to interactive media or the gaming industry.

## Courses at Other Universities

As part of your program of study, you can choose to complete up to five credits at other universities on letters of permission. Navigate to the following Web page for details:

<https://www.brocku.ca/registrar/student-information/letter-of-permission>

## Brock University Design Studio

Are you interested in collaborating with other Brock students on a real-world interactive media project that is sponsored by an outside client?

The Brock University Design Studio (BUDS) ([brocku.ca/buds](http://brocku.ca/buds)) provides Brock students with course-based opportunities to develop their knowledge and skills within a real-world, collaborative, project-based production studio context.

BUDS serves as the vehicle through which interdisciplinary teams of students - leveraging a diverse array of instructional design, digital tool, and subject content expertise - collaborate on interactive design projects that are sponsored by community partners.

## Cross-listed Courses

As an IASC student, you will complete many courses that are cross-listed with other academic units at Brock. Cross-listed courses allow you to specialize in highly focused areas of study and interact with students in other programs at Brock (e.g., Applied Computing, English, Geography, History, Popular Culture, and Visual Arts).

Review the Interactive Arts & Science entry in the Undergraduate Calendar ([brocku.ca/webcal](http://brocku.ca/webcal)) to view the slate of cross-listed courses that are available to IASC students. (Cross-listed courses that are based in the Centre for Digital

Humanities are marked with a \*. Cross-listed courses that are based in other academic units are marked with a #.) Be sure to pay close attention to the pre-requisites for the courses you are interested in completing.

On a case-by-case basis, in discussion with the Academic Advisor and as authorized by the Centre for Digital Humanities Director, you may be permitted to complete Brock courses which are not listed in the Interactive Arts & Science entry.

## Directed Studies and Directed Project Courses

Upper year IASC students who are interested in pursuing a focused area of study which is related to, and not addressed by courses in the IASC program are welcome to contact a Centre for Digital Humanities affiliated faculty member or the Director with an idea for a Directed Studies course.

Similarly, one or more IASC students who are interested in working on a focused individual or collaborative project are invited to propose a Directed Project course. Below are the two course descriptions:

### IASC 3P98 - Directed Studies

Program of study through research and readings designed in consultation with the faculty member directing the course.

### IASC 3P99 - Directed Project

Interactive media project with directed readings designed in consultation with the faculty member directing the course.

To enroll in a Directed Studies or Directed Project course, you will first need to secure the support of a Brock faculty member who will supervise the course. You are strongly advised to contact a faculty member in the Winter or Spring term of the academic year prior to when you will complete the course.

Then you will need to jointly develop a two or three page proposal that the faculty member will forward to the Director

for approval. This proposal should include information about what the course will focus on, a list of readings and/or summary information about the course content, details about the project you will complete (if applicable), plus information about how you will be assessed, including the weighting of the assignments.

## Appendix A: Brock Policies

### Academic Integrity Policy

Academic misconduct is a serious offence. The principle of academic integrity, particularly of doing one's own work, documenting properly (including use of quotation marks, appropriate paraphrasing and referencing/citation), collaborating appropriately, and avoiding misrepresentation, is a core principle in university study. Students should consult Section VII, "Academic Misconduct", in the "Academic Regulations and University Polices" entry in the Undergraduate Calendar, available at <http://brocku.ca/webcal> to view a fuller description of prohibited actions, and the procedures and penalties.

### Academic Accommodation Policy

As part of Brock University's commitment to a respectful work and learning environment, the University will make every reasonable effort to accommodate all members of the university community with disabilities. If you require academic accommodations related to a documented disability to participate in this course, you are encouraged to contact Services for Students with Disabilities in the Student Development Centre (4th floor Schmon Tower, ex. 3240). You are also encouraged to discuss any accommodations with the instructor well in advance of due dates and scheduled assessments.

### Medical Exemption Policy

The University requires that a student be medically examined in Health Services, or by an off-campus physician prior to an absence due to medical reasons from an exam, lab, test, quiz, seminar, assignment, etc. The Medical Certificate can be found at: <http://www.brocku.ca/health-services/policies/exemption>

### Additional Information

Additional academic policies can be found in the **Undergraduate Calendar** and **Faculty Handbook**.

You may also find additional information at:

<https://brocku.ca/policies>

## Appendix B: Brock Links

Below are links to a variety of Brock University services and units. Key links that focus on academic support for students are **bolded**:

**Academic Advising:**

**<https://brocku.ca/registrar/toolkit>**

Academic Integrity:

<https://www.brocku.ca/academic-integrity>

Athletics:

<http://gobadgers.ca>

BioLinc:

<https://brocku.ca/biolinc/>

Brock University Students' Union (BUSU):

<http://www.brockbusu.ca/>

Campus Security:

<https://brocku.ca/campus-security/>

**Campus Store:**

**<https://brock.bookware3000.ca/>**

Career Services:

<https://brocku.ca/ccee/career-education>

Centre for Pedagogical Innovation:

<https://brocku.ca/pedagogical-innovation/>

Hospitality Services:

<https://brocku.ca/hospitality-services>

Experiential Education:

<https://brocku.ca/ccee/experiential-education/>

Faith and Life Centre:

<https://brocku.ca/faith-and-life-centre/>

Financial Services:

<https://brocku.ca/finance/>

**Gibson Library:**

**<https://www.brocku.ca/library>**

International Services:

<https://brocku.ca/international/current/international-services/>

IT Services:

<https://www.brocku.ca/information-technology>

**Learning Services:**

**<https://brocku.ca/learning-services>**

Marilyn I. Walker School of Fine and Performing Arts:

<https://brocku.ca/miwsfpa/>

Mentorship Plus:

<https://brocku.ca/ccee/career-education>

Off Campus Living:

<https://brockocl.ca/>

Office of Human Rights and Equity Services:

<https://www.brocku.ca/human-rights>

Parking Services:

<https://brocku.ca/parking-services>

**Personal Counseling:**

**<https://brocku.ca/personal-counselling>**

Public Transit:

<http://www.yourbus.com/routes-schedules/brock-university/>

Recreation Services:

<https://brocku.ca/recreation>

**Registrar's Office:**

<http://brocku.ca/registrar>

**Registration Guides:**

<https://brocku.ca/registrar/guides-and-timetable/returning-students>

**Residence Services:**

<http://brocku.ca/residence>

**Rodman Hall Art Centre:**

<http://brocku.ca/rodman-hall>

**Student Accessibility Services:**

<https://brocku.ca/sas>

**Student Awards and Financial Aid:**

<https://www.brocku.ca/safa>

**Student Success Centre:**

<http://www.brocku.ca/student-success-centre>

**Student Health Services:**

<https://brocku.ca/health-services>

**Student Life & Community Experience:**

<https://brocku.ca/student-life>

**Student Services:**

<https://brocku.ca/current-students>

**Undergraduate Calendar:**

<https://brocku.ca/webcal/current/undergrad/>

**University Governance:**

<https://www.brocku.ca/university-secretariat>