1 What courses should I take?

Students who entered Fall 2019: by now, you should have attended a mandatory advising meeting in which you worked out a plan for the Fall semester. If you did not attend a meeting, please schedule through Starfish (refer to e-mails from your advisor about this meeting). Please use your program flowchart that was given to you at Orientation as well as the Academic Advising Report (AAR) on SIS to plan your schedule.

Students who entered RIT before Fall 2019: you need to follow your program worksheet or flowchart along with your Academic Advising Report (AAR) in SIS.

Students who entered RIT in Fall 2013:
• First Year Seminar: take a General Education Elective (any Math, Science, or Liberal Arts course coded as a General Education course).

2 IGM Students Taking (or who will take) 106, 202 and 209

The following IGM courses, IGME-106, IGME-202 and IGME-209, have grade pre-requisites which SIS shows. If you earn a D or lower in a course that is a pre-requisite to one of those courses, you must retake the pre-requisite course. Here are the complete grade pre-requisites:

• If you earn a grade of D or lower in IGME-105, you cannot take IGME-106.
• If you earn a grade of D or lower in IGME-106, you cannot take IGME-202.
• If you earn a grade of D or lower in IGME-106, you cannot take IGME-209.

Please check with your academic advisor if you have any questions.

3 How do I search for courses?

Searching for all courses: see https://sis.rit.edu. All courses are coded with 4 letter subject codes. Courses offered by IGM are listed as IGME courses.

Arts & Science Perspectives and Wellness/Activity options: To search for these courses please follow these instructions:

2. Select Student Info System.
3. Click on the Enroll and Search tile.
4. Click the Class Search and Enroll link on the left.
5. Select the appropriate Term you wish to look for courses.
6. Click Additional ways to search
7. In the box that appears, scroll to Search Class Attributes
   a. For Perspectives: Click on the arrow and select GE: <Perspective>
   b. For Wellness/Activity options: Click on the arrow and select Activity Course
8. Click Search. This list displays all scheduled open and closed options.
9. You can narrow down with options displayed on the left side of the screen.
10. Click on the course tile to see available sections, the course description, and additional enrollment information.

Swap feature: You have the ability to instruct SIS to drop you from an enrolled class and enroll you in a waitlisted class by utilizing the swap feature. The swap must be set up at time of enrollment. For more information: https://www.rit.edu/sistraining/sites/rit.edu.sistraining/files/files/Swapping%20Classes.pdf

Tiger Center: A class search tool developed by RIT students in partnership with ITS is available. You cannot enroll in classes using Tiger Center. https://tigercenter.rit.edu/tigerCenterApp/landing#/index

4 Co-op and Career Skills Preparation (IGME-99)

This course targets, and is required for, second-year students. This course helps students prepare for cooperative education employment (“co-op”) by developing job search strategies and material. Students will explore current and emerging aspects of IGM fields to help focus their skill development strategies. Students are introduced to RIT’s Office of Cooperative Education and Career Services, and learn about professional and ethical responsibilities for their co-op and subsequent professional experiences. Students will work collaboratively to build résumés and digital portfolios, and to prepare for interview situations.
The course will be offered Wednesdays from 3:00 PM – 3:50 PM in GOL-1400. Students can enroll through SIS.

5 IGME Fall Semester Core Course Descriptions

5.1 Reminders

These courses are offered in Fall semester and are required (eventually) of all GD&D majors. They are listed in numerical order. Any prerequisites for a course are listed in parenthesis.

5.2 Descriptions

IGME-99 Co-op Preparation Workshop (0 credits): This course helps students prepare for co-operative education employment (“co-op”) by developing job search strategies and material. Students will explore current and emerging aspects of IGM fields to help focus their skill development strategies. Students are introduced to RIT’s Office of Cooperative Education and Career Services, and learn about professional and ethical responsibilities for their co-op and subsequent professional experiences. Students will work collaboratively to build résumés and digital portfolios, and to prepare for interview situations.

The course will be offered Wednesdays from 3:00 PM – 3:50 PM in GOL-1400. Students who started in Game Design & Development in fall 2015 and later are required to take this course. Ideally, a student will take this course in their second year. Students can enroll in the class through SIS. This class covers the mandatory co-op orientation normally held for IGM students.

IGME-105 Game Development and Algorithmic Problem Solving I (4 credits) This course introduces students within the domain of game design and development to the fundamentals of computing through problem solving, abstraction, and algorithmic design. Students will learn the basic elements of game software development, including problem decomposition, the design and implementation of game applications, and the testing/debugging of their designs.

IGME-106 Game Development and Algorithmic Problem Solving II (4 credits): This course furthers the exploration of problem solving, abstraction, and algorithmic design. Students apply the object-oriented paradigm of software development, with emphasis upon fundamental concepts of encapsulation, inheritance, and polymorphism. In addition, object structures and class relationships comprise a key portion of the analytical process including the exploration of problem structure and refactoring. Intermediate concepts in software design including GUIs, threads, events, networking, and advanced APIs are also explored. Students are also introduced to data structures, algorithms, exception handling and design patterns that are relevant to the construction of game systems. (C- or better in IGME-105 Game Development and Algorithmic Problem Solving I)

IGME-110 Introduction to Interactive Media (3 credits): This course provides an overview of media in historical, current and future contexts. Incorporating lectures and discussion with hands on work involving written and interactive media assets, students examine the role of written and visual media from theoretical as well as practical perspectives. The course also provides an introduction to interactive media development techniques, including digital media components and delivery environments. Students will be required to write formal analysis and critique papers along with digital modes of writing including collaborative editing and effective presentation design. (None)

IGME-119 2D Animation & Asset Production (3 credits): This course provides a theoretical framework covering the principles of animation and its use in game design to affect user experience. Emphasis will be placed upon principles that support character development and animations that show
cause and effect. Students will apply these principles to create animations that reflect movement and character appropriate for different uses and environments.

IGME-202  Interactive Media Development (3 credits): In this course, students will learn to create visually rich interactive experiences. It is a course in programming graphics and media, but it is also a course on the relationship between ideas and code. Students will explore topics in math and physics by building programs that simulate and visualize processes in the natural world. Assignments will include major programming projects, such as building a virtual world inhabited by digital creatures that display observable behaviors. (C- or better in IGME-201 New Media Interactive Design and Algorithmic Problem Solving III or IGME-106 Game Development and Algorithmic Problem Solving II of IGME-206 Game Development for Programmers & MATH-185 Math of Graphical Simulation I)

IGME-206  Game Development for Programmers (4 credits): An intensive review of the core features for problem solving within the domain of game design and development for students with a prior software development background. Topics include using existing frameworks, game software architecture, data structures, algorithms, threads, object-oriented design, and data-oriented development appropriate for games, simulations, or entertainment applications. Programming assignments are a required part of this course. (This course is restricted to transfer, change of major and graduate students. Department consent required).

IGME-209  Data Structures & Algorithms for Games & Simulations I (3 credits): This course focuses upon the application of data structures, algorithms, and fundamental Newtonian physics to the development of video game applications, entertainment software titles, and simulations. Topics covered include 3D coordinate systems and the implementation of affine transformations, geometric primitives, and efficient data structures and algorithms for real-time collision detection. Furthermore, Newtonian mechanics principles will be examined in the context of developing game and entertainment software where they will be applied to compute the position, velocity and acceleration of a point-mass subject to forces and the conservation of momentum and energy. Programming assignments are a required part of this course. ((C- or better in IGME 106 Game Development and Algorithmic Problem Solving II or IGME 206 Game Development for Programmers or IGME 201 New Media Interactive Design and Algorithmic Problem Solving III ) and PHYS-111 College Physics I, and MATH-185 Mathematics of Graphical Simulation I)

IGME-219  3D Animation & Asset Production (3 credits): This course provides an overview of 3D game asset production. Basic ideas learned within the first asset production course are also revisited within the 3D environs. Topics covered include modeling, texturing, skinning and animation. Emphasis is put on low polygon modeling techniques, best practices in game art production, and effective communication strategies between artists, programmers and designers. (IGME-119 2D Animation & Asset Production)

IGME-220  Game Design & Development I (3 credits): This course examines the core process of game design, from ideation and structured brainstorming in an entertainment technology context through the examination of industry standard processes and techniques for documenting and managing the design process. This course specifically examines techniques for assessing and quantifying the validity of a given design, for managing innovation and creativity in a game development-specific context, and for world and character design. Specific emphasis is placed on both the examination and deconstruction of historical successes and failures, along with presentation of ethical and cultural issues related to the design and development of interactive software and the role of individuals in a team-oriented design methodology. Students in this class are expected to actively participate and engage in the culture of design and critique as it relates to the field. (GAMEDES-BS and NWMEDID-BS students in year levels 2-5).

IGME-235  Introduction to Web Technology for Game Developers (3 credits): This course introduces web technologies commonly used in the production and distribution of both content focused web sites, and in the creation of interactive applications and games. Students will create web sites and web-
native interactive experiences, and publish them to the web. Programming projects are required. (IGME 106 Game Development and Algorithmic Problem Solving II or IGME 206 Game Development for Programmers or IGME 102 New Media Interactive Design and Algorithmic Problem Solving II. Students may not take and receive credit for IGME-230 and IGME-235. If you have earned credit for IGME-230 or you are currently enrolled in IGME-230 you will not be permitted to enroll in IGME-235.)

**IGME-236 Interaction, Immersion, & the Media Interface** (3 credits): This course examines the concepts of interface and interaction models in a media-specific context, with particular emphasis on the concept of the immersive interface. This course explores concepts such as perception, expectation, Gestalt Theory, interactivity, Semiotics, presence, and immersion in the context of media application development and deployment. In addition, underlying concepts of cognitive psychology and cognitive science will be integrated where appropriate. These theories are then integrated in the exploration of the immersive interface, and with related concepts such as user-level-interface modification, augmentation of identity, and the interface as a social catalyst. (IGME-102 New Media Interactive Design and Algorithmic Problem Solving II or IGME-106 Game Development and Algorithmic Problem Solving II or IGME-206 Game Development for Programmers, and IGME-110 Introduction to Interactive Media)

**IGME-309 Data Structures & Algorithms for Games & Simulations II** (3 credits): This course continues the investigation into the application of data structures, algorithms, and fundamental Newtonian mechanics required for the development of video game applications, simulations, and entertainment software titles. Topics covered include quaternion representation of orientation and displacement, cubic curves and surfaces, classifiers, recursive generation of geometric structures, texture mapping, and the implementation of algorithms within game physics engines for collision detection and collision resolution of rigid bodies, and the numerical integration of the equations of motion. In addition, advanced data structures such as B+ trees and graphs will be investigated from the context of game application and entertainment software development. Programming assignments are a requirement for this course. (IGME-209 Data Structures & Algorithms for Games & Simulations I and (MATH 171 Calculus A or MATH 181 Project Based Calculus I or MATH 181A Calculus I or MATH-186 Mathematics of Graphical Simulation II) and MATH-185 Mathematics of Graphical Simulation I and PHYS-111 College Physics I)

**IGME-320 Game Design & Development II** (3 credits): This course continues to examine the core theories of game design as they relate to the professional field. Beginning with a formalized pitch process, this course examines the design and development paradigm from storyboarding and pre-visualization through rapid iteration, refinement, and structured prototyping exercises to further examine the validity of a given design. Specific emphasis is placed on iterative prototyping models, and on methodologies for both informal and formal critique. This course also explores production techniques and lifecycle in the professional industry. (IGME 202 Interactive Media Development and IGME-220 Game Design & Development I)

**IGME-330 Rich Media Web Application Development I** (3 credits): This course provides students the opportunity to explore the design and development of Media Rich Internet Applications (MRIs). This course moves beyond client and server side web development, and explores issues of presentation, interactivity, persistence, and extensibility common among such applications. Specifically, items explored include framework characteristics, data management, persistence, data binding, information manipulation, as well as data presentation. (IGME-230 Website Design & Implementation or IGME-235 Introduction to Web Technology for Game Developers)
6 Game Design and Development Advanced Elective Courses

6.1 Policies

These courses are advanced elective options for all GDD majors.

For all GDD students who entered RIT in the fall 2161 semester and later, you are expected to fulfill all of your Advanced Elective requirements with IGM classes.

For GDD students who entered RIT in the fall of 2151 and earlier, IGM expects that at least 50% of your Advanced Electives come from IGM. If you would like to take a non-IGM course and have it count as an Advanced Elective, please note the following:

- At least 50% of your Advanced Electives must come from IGM.
- Pre-approved course options can be found in your Academic Advising Report (AAR) in SIS. To take another non-IGM course towards fulfilling your Advanced Elective requirements you will need permission from the IGM Undergraduate Coordinator.

Advanced Elective courses are listed in numeric order. Any prerequisites for a course are listed in parentheses.

6.2 Descriptions

IGME-382 Maps, Mapping and Geospatial Technologies (3 credits): This course provides a survey of underlying concepts and technologies used to represent and understand the earth, a form of new media collectively referred to as Geospatial Technologies (GTs). Students will gain hands-on experience with GTs, including Global Positioning Systems (GPSs), Geographic Information Systems (GISs), remote sensing, Virtual Globes, and geographically-oriented new media such as mapping mashups. Students also will develop basic spatial thinking, reasoning, problem solving, and literacy skills.

IGME-386 Spatial Algorithms and Problem Solving (3 credits): This course is targeted to students with a serious interest in geographical problem solving via underlying spatial algorithms. Students will learn how to compare and contrast different specific spatial algorithms for solving specific geographic problems and develop proficiency with encoding and implementing spatial algorithms in computer programs. Students taking this course will gain a broad interdisciplinary skill set in how to think spatially and computationally through critical engagement of geographical problem solving.

IGME-420 Level Design (3 Credits): This course introduces level design theory and best practice through game level analysis, evaluation, and creation. Students will learn by analyzing game levels from existing games and discussing what made those levels successful or unsuccessful. Through their analysis and hands on experience, students will gain an understanding of overall level design including layout, flow, pacing, and balance. They will enhance their understanding of level design principles by creating their own game levels. (IGME-219 2D Animation and Asset Production and IGME-220 Game Design & Development I).

IGME-423 Games for Change (3 credits): This course provides students with the opportunity to explore games and simulations for social change and learning. Students will explore various research, design, and development techniques for applying games to addressing issues and problems in communities, from local to global. Students will learn to design and develop games and simulations as well as how to gather and analyze data about the games’ usage. Topics may include issues-based organizing and advocacy, place-based learning, and games for civics. In addition, students are exposed to current debates in the field of Games for Change. (IGME-220 Game Design and Development I)
IGME-430 Rich Media Web Application Development II (3 credits): This course provides students the opportunity to continue the exploration of Media Rich Internet Applications (MRIAs). Topics include communications for media ecologies, distributed web application frameworks, advanced interactivity, data transformation, representation, automation, persistence, and large scale systems deployment. In addition, students are exposed to concepts and technologies related to the next generation of MRIA development. (IGME-330 Rich Media Web Application Development Development I)

IGME-450 Casual Game Development (3 credits): This course explores the design and construction of casual game experiences. Topics include modes of casual game play, mechanics for casual games, characteristics of successful games, development processes, and the distribution of casual games. Students will create casual games, and employ technologies to address issues of scalability, presentation, social interconnectivity, and game analytics. (IGME-330 Rich Media Web Application Development I for NWMEDID-BS students; IGME-320 Game Design and Development II for GAMEDES-BS students)

IGME-451 Systems Concepts for Games and Media (3 credits).
This course focuses on systems-based theoretical models of computation in the context of a media-delivery modality. Students will explore concepts such as memory management, parallel processing, platform limitations, storage, scheduling, system I/O, and optimization from a media-centric perspective. Particular emphasis will be placed on the integration of these concepts in relation to industry standard hardware including game consoles, mobile devices, custom input hardware, etc. (IGME 309 Data Structures & Algorithms II)

IGME-460 Data Visualization (3 credits): Our world is flooded with data, and making sense of it can be a challenge. Visualizations help by exposing information, trends, and correlations that might otherwise go unnoticed in the raw data. In this course, students will learn to collect, clean, organize, and filter data sets of their own choosing. They will learn and apply principles from multiple fields including visual design, the psychology of perceptions, user experience design, and ethics. They will create static and interactive visualizations with a variety of information structures (hierarchies, maps, timelines, etc). Students will learn to develop exploratory experiences that tell the “story” within the data. Programming projects are required. (IGME-330 Rich Media Web Application Development I)

IGME-470 Physical Computing and Alternative Interfaces (3 credits): The rich variety and widespread adoption of gestural touch screens, motion-sensing devices, weight-reactive surfaces, wearable digital devices, and similar interface products demonstrates the demand for well-integrated devices and services that seamlessly couple people and environments. Such products can interface computers with real-world inputs and outputs, and give people new ways of controlling and experiencing their devices and information. This course provides a rapid technical introduction to basic electronics (components, circuits, microcontrollers, etc.) and emphasizes the application of interface design concepts to physically interactive and innovative product development. The course requires solo and team projects that blend electronics, programming, and design. (Third-year standing and IGME-102 New Media Interactive Design and Algorithmic Problem Solving II or IGME-106 Game Development and Algorithmic Problem Solving II or IGME-206 Game Development for Programmers).

IGME-480 Current Topics in Interactive Development (3 credits): Interactive media development is a rapidly evolving field. This course provides an opportunity for students to learn and experiment with emerging themes, practices, and technologies that are not addressed elsewhere in the curriculum. Topics covered in this course will vary based on current developments in the field. Students will explore, design, and develop creative interactive experiences pertaining to the semester's domain area. Programming projects are required. (IGME-330 Rich Media Web Application Development)
IGME-529  Foundations of Interactive Narrative (3 credits): This course focuses on the major elements of narrative for interactive environments. Students in this course explore the basics of narrative in the context of interactive games and media, with examination of digital storytelling in games and interactive environments of several varieties. Branching narrative, hypertext, multi- and non-linear concepts are also explored with an emphasis on balancing immersive and interactive aspects of digital narrative. (IGME-202 Interactive Media Development)

IGME-540  Foundations of Game Graphics Programming (3 credits): Students will explore the use of an advanced graphics API to access hardware-accelerated graphics in a real-time graphics engine context. The course will involve discussion of scene graphs, optimizations, and integration with the API object structure, as well as input schemes, content pipelines, and 2D and 3D rendering techniques. Students will also explore the advanced use of the API calls in production code to construct environments capable of real-time performance. Students will construct from scratch a fully functional graphics engine, with library construction for game development. (IGME-309 Data Structures & Algorithms for Games & Simulations II)

IGME-550 Game Engine Design and Development (3 credits): This course will provide students with theory and practical skills in game engine design topic areas such as understanding the graphics pipeline as it influences engine design, hardware principles and the relationship to game engine construction, mathematical principles involved in game engine design, scene graph construction and maintenance, texture and materials management, collision systems, physics systems, particle systems, and control systems. Furthermore, this course will examine software and toolsets that assist game engine designers in their tasks. Students will be expected to design and implement a game engine in teams as well as properly document their design and development strategy. (IGME-540 Foundations of Game Graphics Programming)

IGME-580 Production Studio (3 credits): This course will allow students to work as domain specialists on teams completing one or more large projects over the course of the semester. The projects will be relevant to experiences of the interactive games and media programs, but will require expertise in a variety of sub-domains, including web design and development, social computing, computer game development, multi-user media, human-computer interaction and streaming media. Students will learn to apply concepts of project management and scheduling, production roles and responsibilities, and their domain skill sets to multidisciplinary projects. Students will complete design documents, progress reports and final assessments of themselves and their teammates in addition to completing their assigned responsibilities on the main projects. (IGME-330 Rich Media Web Application Development I for NWMEDID-BS students; IGME-320 Game Design and Development II for GAMEDES-BS students)

IGME 589-01 Research Studio in Experimental Gameplay (3 credits): Experimental games are those games with core mechanics that are novel and have not been explored before. Examples include games that provide a unique play experience, promote feelings in the players not normally associated with games, interactive storytelling that goes beyond the standard branching narrative, innovative physical or virtual user interfaces, and novel multiplayer interactions. In this course, students will work in small teams to create one or more playable prototypes for experimental concepts that attempt to broaden what is possible with games. The games developed may be digital, analog, or mixed.

IGME-590-01 Undergraduate Seminar in Pinball History, Design Development (3 credits): In this course students will learn the history and evolution of pinball games from the earliest versions of Bagatelle through today’s highly digital systems. Students will use a variety of resources including texts (both hard copy and on-line), documentaries, and the archives and exhibits of The Strong National Museum of Play to do research into the history. Finally, they will pitch game concepts and designs as individuals and then form teams around the most successful of these to build working prototype systems.
IGME 590-02 Undergraduate Seminar in Game Mod Design and Development (3 credits): This class will explore the structures and content of a AAA game through game modification. Using existing game content and creation kits, students will develop content that could include new in-game objects, NPCs, environments, and quest lines. This modded content will be designed and tested by students to ensure seamless integration with the existing game. This class will be co-taught by two instructors of varied backgrounds. (Recommended for students with minimum third-year standing in computing or digital content creation majors.)

IGME-590-03 Undergraduate Seminar in Game Balance (3 credits): This course is an in-depth exploration of the sub-field of game design known as balance. Topics include: transitive mechanics and cost/power curves; economic systems in games; probability and the psychology of randomness; pseudorandom numbers; situational balance; level/XP curves, advancement and pacing; tuning; statistics, metrics, and analytics; intransitive mechanics, game theory, and payoff matrices; and the applied use of spreadsheets. (IGME-220 Game Design and Development I)

IGME-590-04 Undergraduate Seminar in Functional Programming (3 credits): Functional programming is a discipline of software design that offers the power of programming with meaning and intent. Though one of the oldest programming paradigms, it has seen a recent resurgence in the face of growing problems in software complexity, scalability and maintainability. In this course, students will learn a mind-bending new way to think about code, about how programs can be built from smaller programs, and learn to perceive and manipulate the core conceptual grounding of the systems they build. Special attention will be paid to functional patterns used in modern UI frameworks, immediate and practical utility for abstract ideas, and learning to use the power of abstraction to reshape our own thinking about the meaning of games and interactive media. (IGME-330 Rich Media Web Application Development)

IGME 624 Tabletop RPG Design (3 credits): This course explores the concepts and mechanics of analog role-playing games, such as tabletop "pencil-and-paper" and live-action role-playing games, from a practical, hands-on perspective. In this project-based course, students will develop their own rule systems to facilitate various facets of role-playing and associated game mechanics, then playtest and publish their games. Students will also use desktop publishing tools to produce game rules and supplemental materials suitable for publication. Note that this course assumes that students have extensive experience in playing tabletop role-playing games. (IGME-220 Game Design and Development I)

IGME-670 Digital Audio Production (3 credits): Technologies and techniques for producing and manipulating digital audio are explored. Topics include digital representations of sound, digital audio recording and production, MIDI, synthesis techniques, real-time performance issues, and the application of digital audio to multimedia and Web production. (IGME-202 Interactive Media Development. Undergraduate students may not take and receive credit for this course if they have already taken IGME-570.)

IGME-690 Graduate Seminar in Design of Legacy/Evolving Games (3 credits): This course examines the design space of games where the nature of the game changes dramatically over the course of play. These games are played in multiple play sessions. Between sessions, new playable characters and new game rules may be introduced, while old rules or areas of play may be permanently removed or modified, in a way that makes each complete playthrough of the game unique to the player or group of players who are experiencing it. In this course, students will examine and analyze several games in this space, and understand and put into practice the design process for making such a game. The course will explore these concepts from a design perspective, as applied to both digital and analog games. (IGME-421 Board and Card Game Design and Development or IGME-621 IGME-421 Board and Card Game Design and Development and NWMEDID-BS or GAMEDES-BS with 3rd year standing)
### 7 IGM Undergraduate Advanced Elective Project Classes

IGM offers a variety of project-based classes (e.g., Production Studio, Research Studio, and others) in addition to regular courses and seminars that often have term projects. The table below summarizes common project courses. Note that project courses provide an excellent opportunity for developing your portfolio and improving in your skills in a variety of areas. By planning ahead and obtaining instructor approval, students could connect/extend project work through many classes, which would potentially add significant polish.

<table>
<thead>
<tr>
<th>Class</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IGME-499</td>
<td>Undergraduate Co-op</td>
<td>If you are on co-op, you must not double-count that work for course credit. RIT requires this distinction when working on a project: pay or credit but not both. For example, if you are working with a professor on a co-op, and that project that has some components happening in Production Studio, you must not enroll in that class.</td>
</tr>
<tr>
<td>IGME-540</td>
<td>Foundations of Graphics Programming</td>
<td>Although game graphics programming requires a team project, it focuses on modern computer graphics technology. If you have taken IGME-309 (“DSA2”), consider IGME-540. There are multiple development-oriented courses in the curriculum (physical computing, AI, engines, and more) that also nicely follow from DSA2.</td>
</tr>
<tr>
<td>IGME-580</td>
<td>Production Studio</td>
<td>Student teams pitch projects to the instructor. Upon approval, students step through the production process to complete their project. This course is flexible and provides an ideal opportunity to develop your expertise, skills, and professional project portfolio. See Research Studio (IGME-589) for professor-generated projects. See also the FAQ below.</td>
</tr>
<tr>
<td>IGME-581</td>
<td>Innovation &amp; Invention</td>
<td>“I&amp;I” fosters teamwork for new ideas, not pre-existing projects, across the campus. Although you can use Production Studio to explore new development, you may want to consider I&amp;I.</td>
</tr>
<tr>
<td>IGME-585</td>
<td>Project in FOSS Development</td>
<td>This course is similar to other IGM project courses. However, students focus on the FOSS movement and particular software development practices.</td>
</tr>
<tr>
<td>IGME-588</td>
<td>New Media Team Project</td>
<td>NMID students take this course in their senior year. GDD students are sometimes invited to join the team. This course provides an excellent opportunity to collaborate with New Media Design majors in the design and development of a large-scale project.</td>
</tr>
<tr>
<td>IGME-589</td>
<td>Research Studio</td>
<td>The students work as domain specialists on teams completing one or more faculty research projects during the semester. The faculty member teaching the class will provide the research topic(s). (In IGME-580, the students generate the project ideas.) Students will learn about research methodology to implement, test, and evaluate results of projects. Students will complete research reports and final assessments of themselves and their teammates in addition to completing their assigned responsibilities on the main projects. See also the FAQ below.</td>
</tr>
<tr>
<td>IGME-599</td>
<td>Independent Study</td>
<td>Use this course to pursue something more research-oriented, especially for concepts not explored in-depth in any undergraduate RIT course. You need to contact a professor with a proposal. See also the FAQ below.</td>
</tr>
</tbody>
</table>

#### 7.1 Course Listings

Enrollment guides, which are posted along with this document

https://sis.rit.edu – click on “SIS Course Catalog Search”

https://www.rit.edu/upub/pdfs/Undergrad_Course_Descriptions.pdf

#### 7.2 Production/Research Studio FAQ

**Enrollment Requirement**

This course is restricted to students in NWMEIDBS or GAMEDES-BS with at least 3rd year standing. Please check the course description on SIS for specific course pre-requisites. If you have
team members working on your project from outside IGM, please have them fill out the form at “Course Request form for Non IGM Majors”
https://www.rit.edu/computing/computing/school-interactive-games-and-media/resources/academic-advising#important-documents

How many times can I take Production/Research Studio?
You can take it as many times as you want as an undergraduate student.

How many studios will count toward Advanced Electives?
Students can take any combination of 2 Production and/or Research Studios to count towards their advanced electives (ex: 2 Production Studios, 2 Research Studios, 1 Research Studio and 1 Production Studio). A student may choose to take additional Production and/or Research Studios, but these would count towards their Free Electives.

What projects can I work on?
In IGME-580 Production Studio, students pitch the projects.
In IGME-589 Research Studio, instructors pitch the projects.

7.3 Independent Study FAQ

This course seems a lot like Production/Research Studio.
You are correct! In most cases, students should take one of the “studios.” However, when you have a topic you’d like to research or a skill you’d like to develop, an independent study (IS) is a good option. For example, a NMID student might want to study wearable computing, or a GDD student might want to explore networking in more detail. The main restriction is that there is no comparable IGM class.

How do I find/generate an Independent Study?
Unless a faculty member specifically advertises an IS, the work is up to you to find a faculty member, pitch the idea, and develop the proposal. Planning ahead by taking classes, visiting office hours, reading Insights, and talking with your faculty and academic advisors will help.

Is there a form?
You can obtain the form from a faculty member or your advisor.

Who fills out the form?
Both you and the faculty sponsor. Once your sponsor has obtained the form, please collaborate to fill in the required information. The form has additional instructions. Once complete, the faculty sponsor or the student will bring the completed application to the IGM office for approval from our Undergraduate Coordinator.

Can I do an Independent Study from outside of IGM?
Yes, but you must check with your academic advisor in advance to determine if the course will count as an advanced elective (assuming you want it to).

8 Who to Contact

Please refer to https://www.rit.edu/computing/computing/school-interactive-games-and-media/resources/academic-advising. If you have any questions regarding what you read in this enrollment guide, or for any other reason, please contact your Academic Advisor ASAP.
IGM Advising:

Jeff Spain        Last Names A – F        jeffspain@rit.edu
Kara Griffith    Last Names G – Mh       kara.griffith@rit.edu
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Walk-in hours for the remainder of the spring semester are cancelled. You can e-mail your advisor or schedule a phone or online appointment via Starfish. More information about this can be found here: [https://www.rit.edu/computing/computing/school-interactive-games-and-media/resources/academic-advising](https://www.rit.edu/computing/computing/school-interactive-games-and-media/resources/academic-advising)

To schedule an appointment with your advisor:

[https://sis.rit.edu/info/welcome.do](https://sis.rit.edu/info/welcome.do)
[https://mycourses.rit.edu/index.asp](https://mycourses.rit.edu/index.asp)

Steps to Scheduling an Appointment:

1. Log in to SIS or myCourses
2. Click “My Success Network”
3. Click on the link under your primary advisor’s name
4. Click “Schedule Appointment”