

Rochester INSTITUTE OF TECHNOLOGY

Minor Program proposal form

golisano college of computing and information sciences

**School of Interactive Games & Media**

**Name of Minor:** Game Design & Development

**Brief description of the minor to be used in university publications**

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| The Minor in Game Design & Development is intended for students studying in a technical computing field outside of GD&D who want to combine their knowledge and skill in software development with the media-centric approach to application design that is exemplified in the professional games and simulation industries. The minor defines a series of courses that build upon students existing knowledge in computing, physics, and mathematics to explore the design principles of games and interactive worlds through the creation of prototypes and software projects. |

**1.0 Minor Program Approvals**

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|  | Approval request date: | Approval granted date: |
| Academic Unit Curriculum Committee |  |  |
| College Curriculum Committee | 1/20/12 | 1/27/12 |
| Inter-College Curriculum Committee | 1/27/12 | 2/13/12 |

**2.0 Rationale:**

A minor at RIT is a related set of academic courses consisting of no fewer than 15 semester credit hours leading to a formal designation on a student's baccalaureate transcript

How is this set of academic courses related?

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| The launch of the undergraduate and graduate programs in Game Design & Development have met with stunning success, with several hundred applications to these programs. In creating these programs, however, several students have asked if they could study in this area at a reduced level in combination with advanced studies in other majors. This has also been a desire voiced by several of our academic and industry partners. In discussing this issue, the program faculty have agreed with this consensus, and also agree that there is ample opportunity for students who want an experience the flavor of GD&D themes and educational ideals, without pursuing a major in the field.  We therefore propose a minor in Game Design & Development to complement the existing degree programs, and to provide opportunities for focused study in GD&D to students pursuing other majors across campus. This minor is intended to give students direct experience with **both** “core” areas in the GD&D program: the design of a game-play experience and the development of game technology from the ground up. This will provide students with the theoretical and practical knowledge that informs the critical discourse on games and game development in the field, and provide a reasonable measure of academic knowledge at a level of depth appropriate to the concept of an academic minor.  Students are required to complete three (3) basic pre-requisites in order to pursue the Minor in Game Design & Development: (1) the successful completion of a GCCIS recognized sequence in introductory computing, (2) the successful completion of an introductory course on multi-media concepts (IGME-110 or equivalent), and (3) the successful completion of College Physics I, or equivalent (University Physics may be substituted for this requirement). Students are expected to complete the mathematics requirement of their major as a portion of the pre-req to their introductory computing sequence and the science requirement. |

**3.0 Multidisciplinary involvement:**

If this is a multidisciplinary minor spanning two or more academic units, list the units and their role in offering and managing this minor.

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| The courses are contained entirely within the School of IGM. |

**4.0 Students ineligible to pursue this minor:**

The purpose of the minor is both to broaden a student's college education and deepen it in an area outside the student’s major program. A minor may be related to and complement a student’s major, or it may be in a completely different academic/professional area.   It is the responsibility of the academic unit proposing a minor and the unit’s curriculum committee to indicate any home programs for which the minor is not a broadening experience.

Please list below any home programs whose students will not be allowed to pursue this minor, provide the reasoning, and indicate if this exclusion has been discussed with the affected programs:

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| Excluded: Game Design & Development BSc. Other exclusions will be based on the pre-requisite knowledge and coursework for the minor. |

**5.0 Minor Program Structure, Sequence and Course Offering Schedule:**

Describe the structure of the proposed minor and list all courses, their anticipated offering schedule, and any prerequisites.

* All minors must contain at least fifteen semester credit hours;
* Minors may be discipline-based or interdisciplinary;
* In most cases, minors shall consist of a minimum of two upper division courses (300 or above) to provide reasonable breadth and depth within the minor;
* As per New York State requirements, courses within the minor must be offered with sufficient frequency to allow students to complete the minor within the same time frame allowed for the completion of the baccalaureate degree;
* Provide a program mask showing how students will complete the minor.

Narrative of Minor Program Structure:

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| Students are required to complete an introductory computing sequence in a major within GCCIS (or equivalent), college physics, a media production course, and the corresponding courses required of their major in mathematics (i.e. discreet mathematics, calculus, etc.) as prerequisite knowledge.  Following this, students take 5 courses in sequence offered by the School of IGM: Interactive Media Development, Game Design & Development I, Game Design & Development II, Data Structures & Algorithms for Games & Simulation I, and Data Structures & Algorithms for Games & Simulations II. |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Course Number & Title | SCH | Required | Optional | Fall | Spring | Annual/Biennial | Prerequisites |
| IGME-202 Interactive Media Development | 3 | X |  | X | X | Annual | (IGME-201 or IGME-106) and IGME-110 and MATH-131 |
| IGME-220 Game Design & Development I | 3 | X |  | X | X | Annual | IGME-202 |
| IGME-320 Game Design & Development II | 3 | X |  | X | X | Annual | IGME-220 |
| IGME-209 Data Structures & Algorithms for Games & Simulation I | 3 | X |  | X | X | Annual | IGME-202, PHYS-111 and MATH-185 |
| IGME-309 Data Structures & Algorithms for Games & Simulation II | 3 | X |  | X | X | Annual | IGME-209 and MATH-186 |

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| Total credit hours: | 15 |

**Minor Course Conversion Table: Quarter Calendar and Semester Calendar Comparison**

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| **Directions: The tables on this page will be used by the registrar’s office to aid student’s transitioning from the quarter calendar to the semester calendar.**  **If this minor existed in the quarter calendar and is being converted to the semester calendar please complete the following tables.**  **If this is a new minor that did not exist under the quarter calendar do not complete the following tables.**  Use the following tables to show minor course comparison in quarter and semester calendar formats. Use courses in the (2011-12) minor mask for this table. Display all required and elective minor courses. If necessary clarify how course sequences in the quarter calendar convert to semesters by either bracketing or using some other notation. |

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| --- | --- |
| Name of Minor in Semester Calendar: | Game Design & Development |
| Name of Minor in Quarter Calendar: | Game Design & Development |
| Name of Certifying Academic Unit: | School of Interactive Games & Media |

| **QUARTER: Current Minor Courses** | | | **SEMESTER: Converted Minor Courses** | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| Course # | Course Title | QCH | Course # | Course Title | SCH | **Comments** |
| 4080-330 | Interactive Digital Media | 4 | IGME-202 | Interactive Media Development | 3 |  |
| 4080-380 | Fundamentals of Game Design and Development I | 4 | IGME-220 | Game Design & Development I | 3 |  |
| 4080-381 | Fundamentals of Game Design and Development II | 4 | IGME-320 | Game Design & Development II | 3 |  |
| 4080-387 | Data Structures & Algorithms for Game Design and Development I | 4 | IGME-209 | Data Structures & Algorithms for Games & Simulation I | 3 |  |
| 4080-487 | Data Structures & Algorithms for Game Design and Development II | 4 | IGME-309 | Data Structures & Algorithms for Games & Simulation II | 3 |  |

Policy Name: **D1.1 MINORS POLICY**

 1. Definition

A minor at RIT is a related set of academic courses consisting of no fewer than 15 semester credit hours leading to a formal designation on a student's baccalaureate transcript.

The purpose of the minor is both to broaden a student's college education and deepen it in an area outside the student’s major program. A minor may be related to and complement a student’s major, or it may be in a completely different academic/professional area.   It is the responsibility of the academic unit proposing a minor and the unit’s curriculum committee to indicate any home programs for which the minor is not a broadening experience.

In most cases, minors shall consist of a minimum of two upper division courses to provide reasonable breadth and depth within the minor.

2. Institutional parameters

1. Minors may be discipline-based or interdisciplinary;
2. Only matriculated students may enroll in a minor;
3. At least nine semester credit hours of the minor must consist of courses not required by the student's home program;
4. Students may pursue multiple minors.  A minimum of nine semester credit hours must be designated towards each minor; these courses may not be counted towards other minors;
5. The residency requirement for a minor is a minimum of nine semester credit hours consisting of RIT courses (excluding "X" graded courses);
6. Posting of the minor on the student's academic transcript requires a minimum GPA of 2.0 in each of the minor courses;
7. Minors may not be added to the student's academic record after the granting of the bachelor's degree.

3. Development/approval/administration processes

* 1. Minors may be developed by faculty at the departmental, inter-departmental, college, or inter-college level. As part of the minor development process:
     1. students ineligible for the proposed minor will be identified;
     2. prerequisites, if any, will be identified;
  2. Minor proposals must be approved by the appropriate academic unit(s) curriculum committee, and college curriculum committee(s), before being sent to the Inter-College Curriculum Committee (ICC) for final consideration and approval.
  3. The academic unit offering the minor (in the case of interdisciplinary minors, the designated college/department) is responsible for the following:
     1. enrolling students in the minor (as space permits);
     2. monitoring students progress toward completion of the minor;
     3. authorizing the recording of the minor's completion on student's academic records;
     4. granting of transfer credit, credit by exam, credit by experience, course substitutions, and advanced placement;
     5. responding to student requests for removal from the minor.
  4. As per New York State requirements, courses within the minor must be offered with sufficient frequency to allow students to complete the minor within the same time frame allowed for the completion of the baccalaureate degree.

4. Procedures for Minor revision

It is the duty of the college curriculum committee(s) involved with a minor to maintain the program’s structure and coherence.  Once a minor is approved by the ICC, changes to the minor that do not have a significant effect on its focus may be completed with the approval of the involved academic unit(s) and the college curriculum committee(s).  Significant changes in the focus of the minor must be approved by the appropriate academic unit(s) curriculum committee(s), the college curriculum committee(s) and be resubmitted to the ICC for final consideration and approval.