

Rochester INSTITUTE OF TECHNOLOGY

Minor Program proposal form

Golisano College of Computing and Information Sciences

Information Sciences and Technologies

**Name of Minor:** Web Development for Computing Majors

Changes approved GCCIS College Curriculum Committee 3/19/2015

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

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| The minor in web development will provide students enrolled in computing degree programs with a firm foundation in Web development.  The Web has become a global, essential, and ubiquitous information delivery medium.  Hence, knowledge of how the Web works and how to effectively develop dynamic websites will add considerable value to the academic programs of computing majors.  This minor offers a curriculum that provides foundational skills in Web development, starting with simple sites, moving through dynamic client-side and server-side functionality, and culminating in Web-based systems that create and access various information services. |

**1.0 Minor Program Approvals**

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|  | Approval request date: | Approval granted date: |
| Academic Unit Curriculum Committee |  |  |
| College Curriculum Committee |  |  |
| Inter-College Curriculum Committee |  |  |

**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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| **These courses bring together the core aspects of Web development: page and site development, data collections, interfaces, and architectures from both the client and server perspective.** |

**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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| NA |

**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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| Students in the BS Information Technology degree program are precluded from pursuing this minor, since all six of this minor’s required courses also are required courses in the BS IT program. |

**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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| A student in the proposed minor will need to complete the following 6 courses . It should be noted that students enrolled in other GCCIS degree programs will have either completed one or more of these courses as part of their plan of study, or they will have completed approved substitute(s). The narrative of the minor program structure is as follows:   |  |  |  | | --- | --- | --- | | Course 1: | ISTE-140  Web & Mobile I | | | Course 2: | ISTE-230  Intro to Databases & Data Modeling | | | Course 3: | ISTE-240  Web & Mobile II | | | Course 4&5: | ISTE-340  Client Programming | SWEN-383  Software Design Principles and Patterns | | Courses 6: | ISTE-341  Server Programming | |   For each department in the college the narrative changes as follows:   |  |  |  |  | | --- | --- | --- | --- | | **Software Engineering**  (5 courses total needed, can be completed in 5 terms) | | | | | Course 1: | ISTE-140  Web & Mobile I | | | | Course 2: | ISTE-230  Intro to Databases & Data Modeling | | | | Course 3: | ISTE-240  Web & Mobile II | | | | Course 4&5: | ISTE-340  Client Programming | ~~SWEN-383 \*\*~~  ~~Software Design Principles and Patterns~~ | | | Courses 6: | ISTE-341  Server Programming | | | | \*\*SWEN-383 waived because student will complete SWEN-262 as a required course in the BS SE. | | | | | **Computer Science**  (5 courses total needed, can be completed in 4 terms) | | | | | Course 1: | ISTE-140  Web I | | | | Course 2: | ~~ISTE-230 \*~~  ~~Intro to Databases & Data Modeling~~ | | | | Course 3: | ISTE-240  Web II | | | | Course 4&5: | ISTE-340  Client Programming | SWEN-383  Software Design Principles and Patterns | | | Courses 6: | ISTE-341  Server Programming | | | | \*ISTE-230 waived because student will complete CSCI-320 as a required course in the BS CS. | | | | | **NSSA**  (5 courses total needed, can be completed in 4 terms) | | | | | Course 1: | ISTE-140  Web I | | | | Course 2: | ~~ISTE-230~~  ~~Intro to Databases & Data Modeling~~ | | | | Course 3: | ISTE-240  Web II | | | | Course 4&5: | ISTE-340  Client Programming | SWEN-383  Software Design Principles and Patterns | | | Courses 6: | ISTE-341  Server Programming | | | | \* ISTE-230 waived because student will complete ISTE-230, as a required course in the BS NSA | | | | | **IGM**  (5 courses total needed, can be completed in 4 terms) | | | | | Course 1: | ~~ISTE-140 \*~~  ~~Web I~~ | | | | Course 2: | ISTE-230  Intro to Databases & Data Modeling | | | | Course 3: | ~~ISTE-240 \*\*~~  ~~Web II~~ | | | | Course 4&5: | ISTE-340  Client Programming | SWEN-383  Software Design Principles and Patterns | | | Courses 6: | ISTE-341  Server Programming | | | | \*ISTE-140 waived because student will complete IGME-230 as a required course in the BS GD&D.  \*\*ISTE-240 waived because student will complete IGME-330 as a required course in the BS GD&D. | | | | | **Computing Security**  (5 courses total needed, can be completed in 4 terms) | | | | | Course 1: | ISTE-140  Web I | | | | Course 2: | ~~ISTE-230 \*~~  ~~Intro to Databases & Data Modeling~~ | | | | Course 3: | ISTE-240  Web II | | | | Course 4&5: | ISTE-340  Client Programming | | SWEN-383  Software Design Principles and Patterns | | Courses 6: | ISTE-341  Server Programming | | | | \* ISTE-230 waived because student will complete ISTE-230, as a required course in the BS CSEC | | | | |

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| Course Number & Title | SCH | Required | Optional | Fall | Spring | Annual/Biennial | Prerequisites |
| ISTE-140  Web & Mobile I | 3 | x |  | x | x | A |  |
| IGME-230 can be substituted for ISTE-140 | | | | | | | |
| ISTE-230  Intro to Database & Data Modeling | 3 | x |  | x | x | A | pre: ISTE-120 \* |
| CSCI-320 can be substituted for ISTE-230 | | | | | | | |
| ISTE-240  Web & Mobile II | 3 | x |  | x | x | A | pre: ISTE-120\*; pre: ISTE-140; |
| IGME-330 can be substituted for ISTE-240 | | | | | | | |
| ISTE-340  Client Programming | 3 | x |  | x | x | A | pre: ISTE-240 |
| ISTE-341  Server Programming | 3 | x |  | x | x | A | pre: ISTE-340;  pre:SWEN-383; |
| SWEN-383 Software Design Principles and Patterns | 3 | x |  | x | x | A |  |
| SWEN-262 can be substituted for SWEN-383 | | | | | | | |
| \*(or 1 semester programming course) | | | | | | | |

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| Total credit hours: | Between 12-15 dependent upon student’s academic program |

**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: | Minor in Web Development for Computing Majors |
| Name of Minor in Quarter Calendar: | Minor in Web Development for Computing Majors |
| Name of Certifying Academic Unit: | Information Sciences and Technologies Department |

| **QUARTER: Current Minor Courses** | | | **SEMESTER: Converted Minor Courses** | | |  | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Course # | Course Title | QCH | Course # | Course Title | SCH | | **Comments** | |
| 4002-360 | Intro to Database and Data Modeling | 4 | ISTE-230 | Intro to Database and Data Modeling | 3 | |  | |
| 4002-409 | Web Site Design & Implementation | 4 | ISTE-240 | Web II | 3 | | Semester co-requisite will be waived for the semester course so the student can finish on time. | |
| 4002-536 | Web Client-Side Programming | 4 | ISTE-340 | Client Programming | 3 | |  | |
| 4002-539 | Web Server-Side Programming | 4 | ISTE-341 | Server Programming | 3 | | Semester co-requisite will be waived for the semester course so the student can finish on time. | |
| 4002-546 | Web Client-Server Programming | 4 | ISTE-442 | Web Application Development | 3 | |  | |
| All students who sign up for the minor before the semester switch will be allowed to take the 5 courses listed above without the co-requisites of ISTE-260 and SWEN-383 to allow the students to finish on time. | | | | | | | | |

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.