

Rochester INSTITUTE OF TECHNOLOGY

Minor Program proposal form

COLLEGE OF sCIENCE

**SCHOOL OF MATHEMATICAL SCIENCES**

**Name of Minor:** Applied Statistics

**1.0 Minor Program Approvals**

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|  | Approval request date: | Approval granted date: |
| Academic Unit Curriculum Committee | January 17, 2017 | January 17, 2017 |
| College Curriculum Committee | January 24, 2017 |  |
| 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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| The set of courses provides a foundation in the concepts and methods of Applied Statistics. |

**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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| n/a |

**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 Applied Statistics program of the School of Mathematical Sciences in the College of Science will not be allowed to pursue this minor as they are already in the Applied Statistics major. |

**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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| To receive a Minor in Statistics, a student completes 5 courses from the table below with a minimum GPA of 2.0 such that:   * At least 3 of the chosen courses must not be required by the student's home program. * All required courses are taken in the School of Mathematical Sciences at RIT   The pre-requisites for a Minor in Applied Statistics are:   * Project-based Calculus I and II (MATH-181 and MATH-182), *or*  Calculus I and II (MATH-181A and MATH-182A), *or*  Calculus A, B and C (MATH-171, MATH-172, and MATH-173) |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Course Number & Title | SCH | Required | Optional | Fall | Spring | Annual/Bi annual | Prerequisites |
| STAT-205  Applied Statistics | 3 |  | X | X | X |  | MATH-173 or MATH-182 or MATH-182A |
| MATH-251  Probability and Statistics I | 3 |  | X | X | X |  | MATH-173 or MATH-182 or MATH-182A |
| MATH-252  Probability and Statistics II | 3 |  | X | X | X |  | MATH-251 |
| ~~STAT-251~~  ~~Probability and Statistics for Engineers I~~ | ~~3~~ |  | ~~X~~ | ~~X~~ | ~~X~~ |  | ~~MATH-182~~ |
| ~~STAT-295 Stat. Analysis for Bioinformatics~~ |  |  |  |  |  |  |  |
| STAT-305  Introduction to Regression Analysis | 3 |  | X |  | X |  | MATH-241 and 252 |
| STAT-315  Statistical Quality Control | 3 |  | X |  | X |  | STAT-205 or MATH-252 |
| STAT-325  Design of Experiments | 3 |  | X | X |  |  | STAT-205 or MATH-252 |
| STAT-335  Introduction to Time Series | 3 |  | X |  | X |  | STAT-205 or MATH-252 |
| STAT-345  Nonparametric Statistics | 3 |  | X | X |  |  | STAT-205 or MATH-252 |
| MATH-401 Stochastic Processes | 3 |  | X | X |  |  | MATH-241 and 251 |
| STAT-405  Mathematical Statistics I | 3 |  | X | X |  |  | STAT-205 or MATH-252 |
| STAT-406  Mathematical Statistics II | 3 |  | X |  | X |  | STAT-405 |
| STAT-415  Statistical Sampling | 3 |  | X |  | X |  | STAT-205 or MATH-252 |
| **STAT-425**  **Multivariate Analysis** | 3 |  | X |  | X |  | STAT-305 |
| **STAT-435**  **Statistical Linear Models** | 3 |  | X |  | X |  | STAT-305 |
| ~~STAT-655 Biostatistics~~ |  |  |  |  |  |  |  |

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| Total credit hours: | 15 |

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.