

Rochester INSTITUTE OF TECHNOLOGY

Minor Program proposal form

colleGE OF APPLIED SCIENCE & tECHNOLOGY

**Department of Civil Engineering Technology, Environmental Management and Safety**

**Name of Minor:** Structural Design

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

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| The structural design minor creates a focus on the different types of structures and materials used in design. It also introduces related design codes. The minor is designed to accommodate students majoring in mechanical engineering technology or mechanical engineering. *This minor is not available for students majoring in civil engineering technology.* |

**1.0 Minor Program Approvals**

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| --- | --- | --- |
|  | Approval request date: | Approval granted date: |
| Academic Unit Curriculum Committee |  |  |
| College Curriculum Committee |  | Aug 2014 (based on last course catalog update in SIS) |
| 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 courses in this minor represent the full structural design sequence and related electives offered in RIT’s Civil Engineering Technology BS program. Students are introduced to the elements of structures and structural analysis and then move on to steel and concrete design. Student can then choose to expand this background to include timber design or move on to applied design in bridges and masonry structures. |

**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:**

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| Students in RIT’s Civil Engineering Technology BS Program are ineligible for this minor. This minor is designed to most readily accommodate students with a mechanical engineering technology or mechanical engineering preparation. |

**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.

Narrative of Minor Program Structure:

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| Students are introduced to the elements of structures and structural analysis and then move on to steel and concrete design. Student can then choose to expand this background to include timber design or move on to applied design in bridges and masonry structures.  This minor consists of 16 semester credit hours; it is a discipline-based minor which includes one 200-level, one 300-level and three 400-level courses. All courses are offered at least once each year. |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Course Number & Title | SCH | Required | Optional (elective) | Fall | Spring | Annual/Biennial | Prerequisites |
| CAST-CVET-230  Elementary Structures | 3 | X |  |  | X | A | CVET-220 or equivalent |
| CAST-CVET-332  Structural Analysis with STAAD | 4 | X |  | X |  | A | CVET-230 |
| CAST-CVET-431  Structural Design - Steel | 3 | X |  | X |  | A | CVET-332 |
| CAST-CVET-432  Structural Design – Reinforced Concrete | 3 | X |  |  | X | A | CVET-332 |
| CAST-CVET-433  Structural Timber Design | 3 |  | X | X |  | A | CVET-332 |
| CAST-CVET-434  Design of Highway Bridges |  | X |  | X | A | CVET-332, 431, 432 |
| CAST-CVET-435 Prestressed Concrete |  | X |  | X | A | CVET-332 |
| CAST-CVET-436  Masonry Structures |  | X | X |  | A | CVET-140, 141, 332 |
| Total credit hours: | 16 | | | | | | |

(1/22/12; rev 5/31/16 jm)

For CAST reference only file screenshot edits/bulletin corrections originally submitted May 2016

