

Rochester INSTITUTE OF TECHNOLOGY

Minor Program proposal form

College of Applied Science

and Technology

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

**Name of Minor:** Water Resources

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

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| The Water Resources minor will broaden the learning experiences and professional opportunities of students in technical disciplines who have an interest in engineering technology courses related to water treatment, wastewater treatment, hydrology, and the environment. |

**1.0 Minor Program Approvals**

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| --- | --- | --- |
|  | Approval request date: | Approval granted date: |
| Academic Unit Curriculum Committee | 1-22-2012 | 1-22-2012 |
| College Curriculum Committee |  |  |
| Inter-College Curriculum Committee |  |  |

**2.0 Rationale:** How is this set of academic courses related?

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| The Water Resources minor combines required and elective courses selected to provide students in technical disciplines with a solid grounding in engineering technology approaches to water treatment, wastewater treatment, hydrology, and the environment. |

**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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| Civil Engineering Technology undergraduate students are ineligible for this minor. |

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

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| Students are introduced to the science of water conveyance and then introduced to principals of treatment for water supplies and wastewater. Students then choose one advanced technical elective, one planning or policy-related course, and have an additional elective to select from the remaining courses. This minor consists of 15 semester credit hours; it is a discipline-based minor which includes two 200-level required courses and three 400- or 500-level elective courses, one each from three topical groups. All courses are offered at least once each year. |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Course Number & Title | SCH | Required | Optional | Fall | Spring | Annual/Biennial | Prerequisites |
| REQUIRED COURSES | CAST-CVET-250 Hydraulics | 3 | X |  | X |  | A | CVET-210 (or equivalent) |
| CAST-CVET-251 Hydraulics Lab | 1 | X |  | X |  | A | CVET-250 co-requisite or pre-requisite |
| CAST-CVET-450 Principles of Water and Wastewater Treatment | 3 | X |  |  | X | A | CVET-250 and CHMG-122 (or any full-year, college-level, general chemistry sequence) |
| ELECTIVES CHOOSE ONE | CAST-CVET-451 Design of Water Treatment | 3 |  | X |  | X | A | CVET-450 |
| CAST-CVET-452 Groundwater Hydraulics |  | X |  | X | A | CVET-250 |
| CAST-CVET-453 Stormwater Management |  | X |  | X | A | CVET-250 |
| ELECTIVES CHOOSE ONE | CAST-CVET-423 GIS for CETEMS | 3 |  | X |  | X | A | 4th year status |
| CAST-ESHS-500 Social Responsibility and Environmental Sustainability |  | X | X |  | A | 4th year status |
| COLA-STSO-421 Environmental Policy |  | X |  | X | A | none |
| ELECTIVE: Choose one from the remaining elective courses. | | 3 |  |  |  |  |  |  |
| Total credit hour: | | 16 |  |  |  |  |  |  |

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

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| --- | --- |
| Name of Minor in Semester Calendar: | Water Resources |
| Name of Minor in Quarter Calendar: | Water Resources |
| Name of Certifying Academic Unit: | Civil Engineering Technology, Environmental Management and Safety |

| **QUARTER: Current Minor Courses** | | | **SEMESTER: Converted Minor Courses** | | | |
| --- | --- | --- | --- | --- | --- | --- |
| Course # | Course Title | QCH | Course # | Course Title | SCH | Comments |
| 0608-420 | Hydraulics | 3 | CVET-250 | Hydraulics | 2 |  |
| 0608-421 | Hydraulics Lab | 1 | CVET-251 | Hydraulics Lab | 1 |  |
| 0608-438 | Principles of Water and Wastewater Treatment | 4 | CVET-450 | Principles of Water and Wastewater Treatment | 3 |  |
| 0608-510 | Design of Water Treatment Facilities | 4 | CVET-451 | Design of Water & Wastewater Treatment Facilities | 3 |  |
| 0608-511 | Water and Wastewater Transmission Systems | 4 | CVET-451 | Design of Water & Wastewater Treatment Facilities | 3 |  |
| 0608-480 | Groundwater Hydraulics | 4 | CVET-452 | Groundwater Hydraulics | 3 |  |
| 0608-482 | Stormwater Management | 4 | CVET-453 | Stormwater Management | 3 |  |
|  | Social Responsibility and Environmental Sustainability | 4 | ESHS-500 | Social Responsibility and Environmental Sustainability | 3 |  |
| 0508-484 | Environmental Policy | 4 | STSO-421 | Environmental Policy | 3 |  |
| 0608-485 | Hydraulic Structures | 4 |  |  |  |  |
|  |  |  | CVET-423 | GIS for CETEMS | 3 |  |