

## **REQUIREMENTS FOR A MINOR IN ENVIRONMENTAL ENGINEERING**

A minor may be earned by a student in any University bachelor's degree program through the successful completion of a minimum of 18 credits as described below. Before beginning the environmental engineering courses, the student must meet the required mathematics, physics, and other prerequisites for each course. A grade of C- or better is required in all of the courses completed for the minor.

One chemistry course is required (4 credits):

CHEM 104\* General Chemistry . . . . . 4

\*Can be replaced with CHEM 112

Two environmental engineering courses (6 credits) are required:

CIEG 223\* Environmental Engineering Processes . . . . . 3

CIEG 305\*\* Fluid Mechanics (Lab optional) . . . . . 3

\*Can be replaced with CIEG 331 or CHEG 112

\*\*Can be replaced with MEEG 331 or CHEG 341

Further, an additional 9 credits (3 courses) in environmental engineering must be taken from the following:

CIEG 430 Water Quality Modeling . . . . . 3

CIEG 433 Hazardous Waste Management . . . . . 3

CIEG 434 Air Pollution Control . . . . . 3

CIEG 436 Solid Waste Management . . . . . 3

CIEG 438\* Water and Wastewater Engineering . . . . . 3

CIEG 440 Water Resources Engineering . . . . . 3

CIEG 498 Groundwater Flow and Containment Transport . . . . . 3

\*Will not count if CIEG 331 is taken in place of CIEG 233

Courses shall be selected from the above list with the specific advice of an advisor in the Civil and Environmental Engineering Department to meet each student's objectives. Other courses in civil and environmental engineering may be included in the above list with prior approval of a representative from the Department of Civil and Environmental Engineering. For inquiries about the environmental engineering minor contact Prof. Pei Chiu at 831-3104 (pei@ce.udel.edu). Civil and chemical engineering majors would be able to pursue the minor by selecting their required technical and science electives appropriately. No additional credits beyond what is required by their major would be necessary to obtain an environmental engineering minor for these students. Mechanical engineering students would need to select their required technical electives appropriately and take one additional course - CHEM 104.