

## Guide to Yale Environmental Engineering Curriculum (2009-2010)

### B.S. (Environmental Engineering Science)

Fifteen credits beyond prerequisites are required. Eleven of these credits are required classes and four of these credits are elective classes.

#### Prerequisites

- MATH 112a or b Single Variable Calc 1
- MATH 115a or b Single Variable Calc 2
- MATH 120a or b Multivariable Calculus
- OR**  
ENAS 151a Multivariable Calculus for Engineers
- CHEM 112a **OR** 114a and CHEM 113b **OR** 115b Comprehensive General Chemistry with CHEM 116La General Chemistry Lab
- OR**  
CHEM 118a Quantitative Foundations of General Chemistry with CHEM 119La Chem. Lab
- OR**  
One term of Physical Chemistry (CHEM 328a or 332a) with Physical Chem. Lab (CHEM 330La).
- Physics 180a Advanced General Physics
- Physics 180b Advanced General Physics

#### Required Courses (11 credits)

- 1) ENVE 120 – Introduction to Environmental Engineering
- 2) ENAS 194 – Differential Equations
- 3) CHEM 102a – Introduction to Green Chemistry\*\*
- 4) MCDB 290b – Microbiology
- OR**  
MCDB 120a – Principles of Molecular, Cellular, and Developmental Biology
- 5) ENVE 371 – Introduction to Hydrology and Water Resources
- 6) F&ES 344a – Aquatic Chemistry
- 7) ENVE 360 – Green Engineering
- 8) ENVE 315 or 448 – Transport Processes
- 9) ENVE 373 – Air Pollution Control
- 10) ENVE 377 – Water Quality Control
- 11) ENVE 490a or b Senior Project

#### Electives (4 credits)

Four courses that must contain an environmental component or be from a cores science (physics, chemistry, biology, math, earth sciences) that is associated with environmental engineering. The majority of these electives must be quantitative. All electives must be approved by the DUS.

\*The instructor for this course is on leave. This course can be replaced with an engineering elective.