

CURRICULUM STANDARD

Effective Term
Fall 2002
[2002*03]

Curriculum Program Title

Environmental Science Technology

Code

A2014B

Concentration

Environmental Management

Curriculum Description

Environmental Management is a concentration under the curriculum title of Environmental Technology. This curriculum prepares individuals for employment in a rural agricultural region with sensitive environmental resources. Major emphasis is placed on agricultural waste management, watersheds, related pathogens and contaminants, and resource conservation.

Coursework includes general education, computer applications, biology, chemistry, industrial safety, and detailed environmental classes specific to the concentration.

Graduates should qualify for numerous positions within the industry. Employment opportunities include, but are not limited to: Chemical Analysis, Biological Analysis, Water/Waste Water Management, Environmental Regulatory Compliance/Enforcement, and Sensitive Resource Management and Conservation.

*Curriculum Requirements**

[for associate degree, diploma, and certificate programs in accordance with 23 NCAC 02E.0204 (3)]

- I. General Education.** Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.
- II. Major Hours.** AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work experience, including cooperative education, practicums, and internships, may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. *(See second page for additional information.)*
- III. Other Required Hours.** A college may include courses to meet graduation or local employer requirements in a certificate, diploma, or associate in applied science program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours.

	AAS	Diploma	Certificate
Minimum General Education Hours	15	6	0
Minimum Major Hours	49	30	12
Other Required Hours	0-7	0-4	0-1
Total Semester Hours Credit (SHC)	64-76	36-48	12-18

**Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic use of computers.*

Major Hours

[ref. 23 NCAC 02E.0204 (3)]

- A. Core.** The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.
- B. Concentration** *(if applicable)*. A concentration of study must include a minimum of 12 semester hours credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.
- C. Other Major Hours.** Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work experience, including cooperative education, practicums, and internships, may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit.

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	AAS	Diploma	Certificate
Minimum Major Hours Required	49 SHC	30 SHC	12 SHC
A. CORE <i>Courses required for the diploma are designated with *</i> Required Courses: * BIO 111 General Biology I 4 SHC * CHM 131 Introduction to Chemistry 3 SHC * CHM 131A Introduction to Chemistry Lab 1 SHC * ENV 218 Environmental Health 3 SHC Required Subject Areas: Science. Select one sequence. * BIO 140 Environmental Biology 3 SHC * BIO 140A Environmental Biology Lab 1 SHC <i>or</i> * ENV 110 Environmental Science 3 SHC Safety. Select one. * ISC 112 Industrial Safety 2 SHC * ISC 121 Envir Health & Safety 3 SHC * EHS 114 OSHA Regulations 4 SHC	16-19 SHC	16-19 SHC	
B. CONCENTRATION <i>(Not applicable)</i> <i>Courses unique to the concentration are designated with **</i> ENV 224 Land Resource Management 4 SHC ENV 240 Field Sampling and Analysis 3 SHC ** ENV 250 Rural Watershed Protection 4 SHC ** ENV 255 Env/Public Hlth Pathogens 4 SHC	15 SHC	15 SHC	

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C. OTHER MAJOR HOURS

To be selected from the following prefixes:

BIO, BUS, CHM, CIS, CIV, COE, CSC, CTS, EHS, ENV, FOR, GIS,
ISC, MSC, PHS, and WAT

*Foreign language courses (including ASL) that are not designated as
approved other major hours may be included in all programs up to a
maximum of 3 semester hours of credit.*