*Training Young People
to Build a Sustainable World*

The Stone Soup Leadership Institute's BETA Program
Durfee High School CTE's Environmental Science & Tech Program

Bristol Community College Certificate Programs

I. Clean Water Quality Professional Certificate Program

A. Program Goals Statement: Prepare students to enter in to, or to advance in, careers in the water industry with particular attention to Wastewater Treatment and Collection. Students successfully completing these courses will be prepared to take the Massachusetts Wastewater Treatment Plant Operator and Collection System Certification Examinations.

B. Program courses:
1. EGR 103: Computer Skills for Engineers and Technicians
2. EGR 141: Introduction to Environment
3. EGR 145: Computerized systems in the Water Treatment Industry
4. EGR 241: Clean Water Technology 1
5. EGR 242: Clean Water Technology 2
6. EGR 246: Collection Systems
7. ENG 101: Composition Writing

C. Average Salaries
1. Waste Water Treatment Technician Average Salary: $80,733

II. Offshore Wind Power Technology Certificate

A. Program Goals Statement: This certificate program is aimed towards preparing technicians and skilled workers for the offshore wind industry. Participants will learn topics in electrical machinery, fluid systems, operations and maintenance, and offshore safety and survival, and will gain hands-on experience on assembly, installation, and maintenance of wind power systems. The program also enables participants to study wind turbine performance characteristics in a wind tunnel to make them conversant with wind turbine operation and need for maintenance.

B. Program Courses:
1. EGR 151: Electrical Machinery
2. EGR 171: Fluid Systems
3. EGR 281: Offshore Safety and Survival
4. EGR 282: Wind Power Technology
5. EGR 283: Wind Power Operations and Machinery
6. ENG 101: Composition Writing
7. MTH 152: College Algebra
8. SCI 112: Principals of Ecology

C. Average Salary:
1. Geographic Informational Systems - Entry Level Analyst: $58,001

III. Solar Energy Certificate

A. Program Goals Statement: This certificate is designed to help individuals understand the fastest growing form of power generation in the world - solar power. Students will learn about design requirements, installation guidelines, materials, and resources of green energy systems. Key concepts include the basics of electrical circuits, sustainable practices, and conservation measures. Students will also be trained in energy assessment, auditing and efficiency. Upon completion of this certificate, graduates will be prepared to work in entry-level positions in energy-related fields.

B. Program Courses:
1. EGR 102: Introduction to Sustainable and Green Energy Technologies
2. EGR 131: Introduction to Electrical Circuits
3. EGR 183: Energy Efficiency and Conservation Measures
4. EGR 284: Solar Power

C. Average Salary:
1. Energy Manager Salary: $120,808
2. Renewable Energy Project Manager: $86,163

IV. Small Business and Entrepreneurial Management

A. Program Goals Statement: This certificate prepares students to start and operate a small business. The Program introduces students to management, marketing, accounting, and finance, essential areas of business development. All courses can be transferred to the degree program in Business Administration Career.

B. Program Courses:
1. ACC 101: Principles of Accounting 1
2. ACC 114: Introduction to Quickbooks Pro
3. BUS 112: Personal Finance Planning
4. CIS 111: Introduction to Business Information Systems
5. ENG 101: Composition 1: College Writing
6. MAN 101: Principles of Management
7. MAN 152: Purchasing
8. MAN 154: Small Business Management
9. MAR 101: Principles of Marketing
10. MAR 114: Sales Principles

C. Average Salary:
1. N/A

V. Geographic Informational Systems Certificate

A. Program Goals Statement: Geographic Informational Systems (GIS) provides a powerful tool in any academic discipline to analyze relationships among data. It is commonly used in business, environmental, geographical, political, law enforcement, and social science applications.

B. Program Courses:
1. EGR 103: Computer Skills for Engineers and Technician
2. GIS 101: Introduction to Geographic Informational Systems
3. GIS 102: Applications of Geographic Informational Systems
4. SSC 101: Introduction to geography

C. Average Salary:
1. Geographic Informational Systems - Entry Level Analyst: $58,001

VI. Green Building Technology Certificate

A. Program Goals Statement: This certificate introduces students to the construction profession and provides them with the applied technical skills necessary for employment as construction technicians or to direct a construction project. Students learn the process of constructing a green building from the ground up, develop an in-depth working knowledge of energy efficiency, conservation and construction estimating techniques, and gain practical experience in preparing working drawings for building construction. Graduates of this program will be prepared to complete the LEED Green Associate certification, which denotes basic knowledge of green design, construction, and operations. Due to the greater use of CAD equipment by architects and engineers, as well as drafters, students also develop drafting techniques using computer-aided design and drafting software, including AutoCAD.
B. Program courses:
   1. CAD 101: Computer Aided Drafting
   2. CAD 102: Architectural Drawing
   3. EGR 123: Green Building Practices
   4. EGR 125: Construction Estimating
   5. EGR 183: Energy Efficiency and Conservation Measures
   6. ENG 101: Composition Writing
   7. MTH 152: College Algebra
C. Average Salaries:
   1. Green Building Salary: $64,591

VII. Sustainable Agriculture Certificate

A. Program Goals Statement: Gain the academic knowledge and practical skills to enter the expanding world of sustainable organic agriculture and technology. The program is for those with an appreciation for the natural world, ecology, human health and welfare, and a spirit of entrepreneurship.
B. Program Courses:
   1. AGR 114: sustainable Agriculture
   2. AGR 116: Water Acquisition and Conservation
   3. SCI 115: Science and Care of Plants
   4. SOC 216: Food, famine and farming in global Village
C. Average Salary:
   1. $57,408