# **Green Building Maintenance and Management**

Degree Awarded: Associate in Applied Science

### Offered through the Hudson Valley Educational Consortium.

Lead college: SUNY Sullivan

Recommended Course S	Sequence ———
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Pre-Progra	m Requirements	
Math Com	p	
First Semes	ster: Credi	ts
CCS 102	College Life Skills	1
ENG 101	Freshman English I	3
	Elementary Algebra	3
	Intro to Green Buildings (fall only)	
GRB 1200	Intro to Renewable Energy # (fall only)	
	Computer Science elective	3
PES 100	Concepts of Wellness	1
PES	Physical Education	1
Second Sen	nester:	
ENG 102	Freshman English II	3
PHL 220	Ethics	3
	Energy Management # (spring only)	3
GRB 1400	Green Building Materials # (spring only	)3
BIO 101	General Biology 1	4
Third Seme	ester:	
ECO 202	Microeconomics	3
GRB 2100	Building Automation	
	and Controls # (fall only)	3
GRB 2200	Solar & Wind Systems # (fall only)	3
BIO 205	General Ecology	3
GRB 2300	Commercial Electrical # (fall only)	3
Fourth Sen	nester:	
GRB 2400	Care of Green Spaces # (spring only)	3
MGT 205	Human Resources Management	3
GRB 2500	Troubleshooting	
	Building Systems # (spring only)	3
	Liberal Arts elective +	3
GRB 2600	Green HVAC # (spring only)	3

### **Program Description**

The associate in applied science degree in Green Building Maintenance and Management provides students with the skills and knowledge needed to maintain and manage high-performance commercial buildings.

New construction and existing buildings that have upgraded energy systems rely on sustainable technology. Recent emphasis on green technologies and LEED-certified (Leadership in Energy and Environmental Design) building standards support the use of alternative forms of energy as well as the use of sustainable products for construction, interior design and building maintenance. In addition to learning the most current theories, students will acquire the hands-on training needed to work with rapidly evolving technologies including photovoltaic cells, wind generators and geothermal heating, ventilation and air conditioning (HVAC) systems.

This program has a hands-on component which may require students to travel to Sullivan County. .

#### **Admission Criteria**

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission.

NOTE: See College Catalog for math competency requirement.

Total Credits: 65



<sup>\*</sup> Required of all first-time, full-time students

<sup>\$</sup> All AAS degrees require ENG 1001 Composition I, ENG 1301 Fundamentals of Speech, a 4 credit science course with lab and a minimum of 10 additional Liberal Arts credits from at least two other areas of study. Liberal Arts prefixes: ANT, ART, ECO, ENG, FLA, GEO, HIS, HON, HUM, MAT, PHO, POL, PSY, SCI, and SOC. CPT 1301, Logic and Problem Solving, is also singularly classified as liberal arts.

<sup>#</sup> The technical courses for this program will be delivered on site and/or through interactive TV Distance Learning Technology approved for all Consortium colleges.

<sup>+</sup> Minimum credit value for this course is 3 credits. Students may fulfill this requirement with a course of a higher credit value.

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### **Program Learning Outcomes**

Students will learn:

- the skills and knowledge necessary to make decisions about the management and maintenance of building systems,
- to maintain both conventional and green building technologies and systems that are used to produce energy, heat, light, and ventilation as well as those that consume energy,
- to calculate energy efficiency and recommend changes for better outcomes,
- the essential components of building wiring, heating, cooling, and ventilation systems so they can assume responsibility for maintenance of these systems,
- the basic principles for the positioning and use of wind turbines, photovoltaic cells, passive solar systems and other green building systems,
- to manage projects, including communication with the building owners, utilities, planners, and contractors to assure effective and efficient building maintenance and management.

## **Career Opportunities**

- Energy and indoor air quality auditor
- HVAC operations and maintenance technician
- Solar and wind energy technician
- Green building, renewable energy and energy efficiency consultant

## **Transfer Opportunities**

While the A.A.S. degree leads to immediate employment, please check with the intended transfer school for details.

#### **Contact Information**

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