



College of  
**ENGINEERING**  
VILLANOVA  
UNIVERSITY

**MS in Sustainable Engineering  
Certificate in Sustainable Engineering**

Date: \_\_\_\_\_

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_ MI: \_\_\_\_\_

Banner ID: \_\_\_\_\_

Preferred Mailing Address: \_\_\_\_\_

Preferred Phone: \_\_\_\_\_

Preferred Email: \_\_\_\_\_

**Colleges and Universities Attended**

Name	Periods Attended	Degrees Earned

Consult the College of Engineering Graduate Program Bulletin for specific degree requirements.

Student Signature \_\_\_\_\_ Date \_\_\_\_\_

Student Advisor Signature \_\_\_\_\_ Date \_\_\_\_\_

Program Director \_\_\_\_\_ Date \_\_\_\_\_

Expected date to meet requirements \_\_\_\_\_

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_ MI: \_\_\_\_\_

Banner ID: \_\_\_\_\_

*Master of Science in Sustainable Engineering*

*Certificate in Sustainable Engineering*

Two courses may be transferred from another program. All courses for the certificate must be from Villanova.

Dept	Course #	Course Title	Credits	Date Planned	Date Completed	Grade	Core/Track/Elective
							Core
							Core
							Core
							Track
							Track
							Track
							Track
							Elective/Research
							Elective/Research
							Elective/Research

Research thesis: Yes  No

Advisor Signature: \_\_\_\_\_

Program Director Signature: \_\_\_\_\_

### **MS in Sustainable Engineering: Thesis Option**

Three Core Courses (3 credits each; 9 credits Total)  
Four Courses in Track (3 credits each; 12 credits Total)  
M.S. Thesis (9 credits)

This option requires a presentation of the thesis work at a conference or at Villanova. Thesis requires research advisor and program director approval.

Total Credits:  $9 + 12 + 9 = 30$

### **MS in Sustainable Engineering: Non-Thesis Option**

Three Core Courses (3 credits each; 9 credits Total)  
Four Courses in Track (3 credits each; 12 credits Total)  
Three Elective Courses (3 credits each; 9 credits Total)

Total Credits:  $9 + 12 + 9 = 30$

### **5 Year BS (Another Field of Engineering) and MS in Sustainable Engineering: Non-Thesis Option**

Three Core Courses (3 credits each; 9 credits Total)  
Four Courses in Track (3 credits each; 12 credits Total)  
Three Elective Courses (3 credits each; 9 credits Total)

Total Credits:  $9 + 12 + 9 = 30$

Up to three graduate courses can be taken during your senior year in a BS program in engineering. These courses cannot be used to meet requirements for your BS degree.

### **Certificate in Sustainable Engineering**

This certificate will consist of 5 courses. A minimum of 2 courses must be selected from the core courses. The remaining courses must be selected from one of the tracks for the MS in Sustainable Engineering degree. All courses must be from Villanova. A minimum cumulative GPA of 3.0 must be obtained from the courses used towards the certificate.

## Additional Rules

1. Only 2 courses may be transferred or counted from another program with approval (from the program director) for the MS degree. A minimum cumulative GPA of 3.0 from the MS courses is required for graduation
2. Students who have already obtained an MS Engineering degree from Villanova within the past 5 years who have not enrolled in the certificate program may use up to 3 courses previously used for their MS degree for the certificate. These courses must have been taken within the previous 5 years before applying for the certificate.
3. Students who do not have an engineering or science undergrad degree may enroll in the certificate program or the MS degree as long as they have completed at least the following with the understanding that their academic advisor and program director may require additional coursework.
  - a. Calculus I, Calculus II, and Differential Equations
  - b. Two semesters of Chemistry and at least 1 laboratory (only one for the energy track)
  - c. One semester of Physics
  - d. At least one additional science or engineering laboratory
  - e. Undergraduate engineering courses sufficient to meet prerequisites for their graduate course work.
4. Although officially enrolled in the certificate or MS degree, students may not have the required background or prerequisite classes to enroll in specific courses. Their academic advisor and the program director may require a student to take additional courses, including undergraduate courses, before enrolling in courses for their program.