

The Sustainable Energy and the Economy certificate (SEE) provides students with a comprehensive understanding of the emerging sustainable energy sector. Upon completion of this certificate, students will have critical analytical skills that will help them enter the sustainable energy sector and advance their careers. The SEE certificate requires a minimum of 13 credit hours drawn from core courses in sustainability and energy economics, combined with an elective based on student preferences that will allow tailoring of the certificate to specific fields.

**Prerequisite Courses for the Certificate:**

			<b>Credit Hours</b>
AEDECON	2001	or equivalent (ECON 2001.01)	3

**Required Courses (10 cr hr):**

			<b>Credit Hours</b>
AEDECON/ENR	2501	Introduction to Sustainability	4
AEDECON/INTSTS	4320	Energy, the Environment, and the Economy	3
AEDECON	4321	Sustainable Energy	3

**Additional Supporting Courses (select a minimum of 3 credits from the courses listed below):**

			<b>Credit Hours</b>
AEDECON	3114	Commodity Futures and Options Markets	3
AEDECON	3103	Principles of Agribusiness Finance	3
or BUSFIN	3120	Foundations of Finance	3
AEDECON	4310	Environmental and Natural Resource Economics	3
AEDECON	4330	The Sustainable Economy: Concepts and Methods	3
AVIATN	3000	Aviation Management and Marketing	3
BUSML	4255	Sustainability Marketing for Consumers, Firms & Society	3
BUSOBA	4253	Sustainable Operations	3
BUSOBA	4254	Projects in Sustainable Supply Chains	3
CRPLAN	2000	Introduction to City and Regional Planning	3
CRPLAN	3400	Planning for Sustainable Economic Development	3
ENVENG	3200	Fundamentals of Environmental Engineering	3
ENVENG	5600	Science, Engineering, and Public Policy	3
ENR	4450	Climate Change Policy	3
ENR	5210	US Environmental Impact Assessment	3
ENR	5211	International Environmental Impact Assessment	3
HISTORY	2911	The Climate Crisis: Mechanisms, Impacts, and Mitigation	4
PUBAFRS	3000	Public Policy Analysis	3
GEOG	3900	Global Climate Change: Causes and Consequences	3
or GEOG	3900.01	Global Climate Change: Causes and Consequences	3
or GEOG	3900.02	Global Climate Change: Causes and Consequences	4
GEOG	5301	Sustainable Transportation	3

**Restrictions and General Information**

1. A minimum 2.00 cumulative point-hour ratio is required in the Certificate course work; and a minimum grade of a C- is required for each course used to complete this Certificate.
2. A student is permitted to overlap up to 50% of credit hours between other degree programs (major, minor, other certificates, or GE).
3. Course work graded Pass/Non-Pass cannot count in the Certificate program and no more than 3 credit hours of course work graded Satisfactory/Unsatisfactory may count toward the Certificate.
4. No more than 3 credit hours of 3488 (Professional Development in Animal Sciences), 4193 (Individual Studies), 4189 (Field Experience), 4999 (Research with Distinction), or 4999H (Honors Research with Distinction) may count toward the Certificate.
5. A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination toward the Certificate program.
6. At least 12 total credit hours counting in the Certificate must be earned in regular OSU coursework.
7. Consult with Advisor for filing deadlines. Advising Contact: Kassie Kurzhals, Undergraduate Advisor for AED Economics, [Kurzhals.7@osu.edu](mailto:Kurzhals.7@osu.edu).

**Notes:**

Students in the EEDS Sustainability and Business, or environmental economics and policy tracks are required to take AEDE/ENR 2501, AEDE 4310 AEDE/IS 4320, AEDE 4330, and AEDE 3103 or BUSFIN 3120. Either AEDE 2001 or ECON 2001.01 is required for AEDE 4310 and AEDE/IS 4320. These students can only double count two courses for the major and the certificate.

EEDS minor students must take AEDE/ENR 2501 and can double count two courses for the minor and the certificate. Students in the Agribusiness and Applied Economics degree can double count AEDECON 3103 or 3114.

Prerequisites for courses in the certificate:

- PUBAFRS 3000 requires ECON 2001.01, 2001.02 or 2001.03, or AEDE 2001, as well as the GE Data Analysis course as a prerequisite.
- AVIATN 3300 requires AVIATN 2000 and 2100. Students in Aviation can double count AVIATN 3000.
- ENVENG 3200 requires CHEM 1210 or 1250 and enrollment in the Civil or Environmental Engineering major, or Environmental Engineering minor.
- BUSML 4255 requires BUSML 3250 or AEDECON 3102.
- BUSOBA 4253 requires BUSOBA 2320,2321, 3230, AcctMIS 2200, 2300, and BUSMHR 2292.
- BUSOBA 4254 requires BUSOBA 3230 or BUSML 3380 or AEDECON 3105.
- CRPLAN 3400 requires Econ 2002.01, .02, or 0.03H, or AEDECON 2001.