



### **Twin Cities Campus**

## **Sustainability Studies Minor**

*College of Food, Agri & Natural Resource Sciences*

### **College of Food, Agricultural and Natural Resource Sciences**

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2020
- Required credits in this minor: 15 to 18
- NA

One of the greatest challenges facing the 21st-century world is jointly sustaining the environment, as well as human health and well-being. The sustainability studies minor provides students from across the University with a unique opportunity to address this sustainability challenge. Students will explore the fundamental ecological, social, ethical, political, and economic forces that influence the long-term quality and viability of human society and the natural environment. The introductory core course provides a conceptual overview of various models for understanding sustainability, and uses case studies to demonstrate the challenges of putting sustainability into practice. Additional electives are chosen from courses that explore multiple disciplinary perspectives related to sustainability. Finally, the capstone experience allows students to synthesize and apply their knowledge to real sustainability problems.

For this minor, students must complete 6 credits of required courses for the core and the capstone, and 9-12 restricted electives, for a total of 15-18 credits. Study abroad courses may count for up to 6 credits. One course may be taken at the 1000 or 2000 level. One course may be taken online.

## **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

## **Minor Requirements**

### **Core**

[SUST 3003](#) - Sustainable People, Sustainable Planet [ENV] (3.0 cr)

[SUST 4004](#) - Sustainable Communities (3.0 cr)

### **Electives**

Take three courses, not more than one from each of four categories. You may also petition for study abroad, summer, special topics, new, and other courses to count toward elective requirements. You may complete up to one online course as an elective. You may complete up to one 1xxx or 2xxx level elective, pending approval from the minor advisor or coordinator.

Take 3 or more course(s) from the following:

#### **Economics and Policy**

Take no more than 1 course(s) from the following:

- [ABUS 4515](#) - Strategy and Management for a Sustainable Future (3.0 cr)
- [APEC 3611W](#) - Environmental and Natural Resource Economics [ENV, WI] (3.0 cr)
- [BBE 3201](#) - Sustainability of Food Systems: A Life Cycle Perspective [GP] (3.0 cr)
- [CEGE 5212](#) - Transportation Policy, Planning, and Deployment (3.0 cr)
- [ESPM 3241W](#) - Natural Resource and Environmental Policy [SOCS, CIV, WI] (3.0 cr)
- [ESPM 3245](#) - Sustainable Land Use Planning and Policy [ENV] (3.0 cr)
- [ESPM 3251](#) - Natural Resources in Sustainable International Development [GP] (3.0 cr)
- [ESPM 3261](#) - Economics and Natural Resources Management [SOCS, ENV] (4.0 cr)
- [ESPM 3602](#) - Regulations and Corporate Environmental Management (3.0 cr)
- [ESPM 3603](#) - Environmental Life Cycle Analysis (3.0 cr)
- [ESPM 3604](#) - Environmental Management Systems and Strategy (3.0 cr)
- [ESPM 4242](#) - Methods for Environmental and Natural Resource Policy Analysis (3.0 cr)
- [ESPM 5602](#) - Regulations and Corporate Environmental Management (3.0 cr)
- [GCC 3001](#) *{Inactive}* [ENV] (3.0 cr)
- [GCC 3011](#) - Pathways to Renewable Energy [TS] (3.0 cr)
- [GCC 3017](#) - World Food Problems: Agronomics, Economics and Hunger [GP] (3.0 cr)
- [GCC 5008](#) - Policy and Science of Global Environmental Change [ENV] (3.0 cr)
- [GCC 5017](#) - World Food Problems: Agronomics, Economics and Hunger [GP] (3.0 cr)
- [PA 5232](#) - Transportation Policy, Planning, and Deployment (3.0 cr)
- [SSM 4407W](#) - Sustainable Manufacturing Principles and Practices [WI] (3.0 cr)
- [SSM 3301](#) - Global Water Resource Use and Sustainability [ENV] (3.0 cr)

#### **Social Science and Humanities**



Take no more than 1 course(s) from the following:

- [ANTH 4053](#) - Economy, Culture, and Critique [SOCS, GP] (3.0 cr)
- [COMM 4251](#) - Environmental Communication [ENV] (3.0 cr)
- [ENGL 3501](#) - Public Discourse: Coming to Terms with the Environment [LITR, ENV] (3.0 cr)
- [ESPM 3011W](#) - Ethics in Natural Resources [CIV, WI] (3.0 cr)
- [GCC 3013](#) - Making Sense of Climate Change - Science, Art, and Agency [CIV] (3.0 cr)
- [GCC 3024](#) [Inactive](#) [ENV] (3.0 cr)
- [GCC 3025](#) - Seeking the Good Life at the End of the World: Sustainability in the 21st Century [CIV] (3.0 cr)
- [GCC 3031](#) - The Global Climate Challenge: Creating an Empowered Movement for Change [CIV] (3.0 cr)
- [GCC 5013](#) - Making Sense of Climate Change - Science, Art, and Agency [CIV] (3.0 cr)
- [GCC 5024](#) [Inactive](#) [ENV] (3.0 cr)
- [GEOG 3376](#) - Political Ecology [ENV] (3.0 cr)
- [GEOG 3379](#) - Environment and Development in the Third World [SOCS, ENV] (3.0 cr)
- [GER 3651](#) - Thinking Environment: Green Culture, German Literature and Global Debates [LITR, ENV] (3.0 cr)
- [GLOS 3303](#) [Inactive](#) [SOCS, ENV] (3.0 cr)
- [GLOS 3613V](#) [Inactive](#) [SOCS, GP, WI] (3.0 cr)
- [GLOS 3613W](#) - Stuffed and Starved: The Politics of Eating [SOCS, GP, WI] (3.0 cr)
- [GLOS 4311](#) - Power, Justice & the Environment [DSJ] (3.0 cr)
- [HECU 3592](#) [Inactive](#) (4.0 cr)
- [HSCI 3244](#) - Nature's History: Science, Humans, and the Environment [HIS, ENV] (3.0 cr)
- [PHIL 3301](#) - Environmental Ethics [ENV] (4.0 cr)
- [SOC 3613W](#) - Stuffed and Starved: The Politics of Eating [SOCS, GP, WI] (3.0 cr)
- [SOC 4305](#) - Environment & Society: An Enduring Conflict [ENV] (3.0 cr)
- [SOC 4311](#) - Power, Justice & the Environment [DSJ] (3.0 cr)
- [SUST 3017](#) - Environmental Justice [DSJ] (3.0 cr)

#### •Biophysical Sciences

Take no more than 1 course(s) from the following:

- [AGRO 3203W](#) - Environment, Global Food Production, and the Citizen [GP, WI] (3.0 cr)
- [AGRO 5321](#) - Ecology of Agricultural Systems (3.0 cr)
- [ANSC 3203W](#) - Environment, Global Food Production, and the Citizen [GP, WI] (3.0 cr)
- [BIOL 1052](#) - Environmental Biology: Science and Solutions [ENV] (3.0 cr)
- [BIOL 1055](#) - Environmental Biology: Science and Solutions with Laboratory [BIOL, ENV] (4.0 cr)
- [CHEM 4601](#) - Green Chemistry [ENV] (3.0 cr)
- [EEB 3001](#) - Ecology and Society [ENV] (3.0 cr)
- [EEB 3407](#) - Ecology (3.0 cr)
- [EEB 3408W](#) - Ecology [WI] (4.0 cr)
- [EEB 3534](#) - Biodiversity Science: The origins, maintenance, consequences, detection & assessment of biodiversity [ENV] (3.0 cr)
- [EEB 4609W](#) - Ecosystem Ecology [ENV, WI] (3.0 cr)
- [EEB 5534](#) - Biodiversity Sci: The origins, maintenance, consequences, detection and assessment of biodiversity [ENV] (3.0 cr)
- [ESCI 3005](#) - Earth Resources (3.0 cr)
- [ESCI 3402](#) - Science and Politics of Global Warming [ENV] (3.0 cr)
- [ESCI 5402](#) - Science and Politics of Global Warming (3.0 cr)
- [ESPM 3108](#) - Ecology of Managed Systems [ENV] (3.0 cr)
- [FNRM 3101](#) - Park and Protected Area Tourism (3.0 cr)
- [FW 4102](#) - Principles of Conservation Biology [ENV] (3.0 cr)
- [GCC 3032](#) - Ecosystem Health: Leadership at the Intersection of Humans, Animals, and the Environment [ENV] (3.0 cr)
- [GCC 5032](#) - Ecosystems Health: Leadership at the intersection of humans, animals and the environment [ENV] (3.0 cr)
- [GEOG 1403](#) - Biogeography of the Global Garden [BIOL, ENV] (4.0 cr)
- [GEOG 3401W](#) - Geography of Environmental Systems and Global Change [ENV, WI] (3.0 cr)
- [HECU 3591](#) [Inactive](#) (4.0 cr)
- [HORT 3131](#) - Student Organic Farm Planning, Growing, and Marketing (3.0 cr)

#### •Design and Technology

Take no more than 1 course(s) from the following:

- [ARCH 4561](#) - Architecture and Ecology [ENV] (3.0 cr)
- [BBE 2201](#) - Renewable Energy and the Environment [TS] (3.0 cr)
- [BBE 4733](#) - Renewable Energy Technologies [TS] (3.0 cr)
- [CEGE 3501](#) - Introduction to Environmental Engineering [ENV] (3.0 cr)
- [CEGE 4160](#) - Special Topics (1.0 - 4.0 cr)
- [CEGE 4561](#) - Solids and Hazardous Wastes (3.0 cr)
- [EE 1701](#) - Climate Crisis: Implementing Solutions [TS] (3.0 cr)
- [ESPM 3601](#) - Sustainable Housing--Community, Environment, and Technology [TS] (3.0 cr)
- [GCC 3005](#) - Innovation for Changemakers: Design for a Disrupted World [GP] (3.0 cr)
- [GCC 5005](#) - Innovation for Changemakers: Design for a Disrupted World [GP] (3.0 cr)
- [GCC 5501](#) - Knowledge to Impact: Creating Action with Your Grand Challenge Project Idea (3.0 cr)
- [LA 1001](#) [Inactive](#) [ENV] (3.0 cr)
- [LA 3003](#) - Climate Change Adaptation (3.0 cr)



- LA 3004 *{Inactive}*(4.0 cr)
- LA 3501 - Environmental Design and Its Biological and Physical Context [ENV] (3.0 cr)
- LA 3514 *{Inactive}*[CIV] (3.0 cr)
- LA 4755 *{Inactive}*[TS] (3.0 cr)
- LA 5514 *{Inactive}*(3.0 cr)
- PA 5743 *{Inactive}*(1.5 cr)
- URBS 3751 - Understanding the Urban Environment [ENV] (3.0 cr)
- GCC 3027 - Power Systems Journey: Making the Invisible Visible and Actionable [TS] (3.0 cr)
- GCC 5027 - Power Systems Journey: Making the Invisible Visible and Actionable [TS] (3.0 cr)