

Green building is a broad term covering energy conservation, selection of low-impact materials, appropriate technologies, and life-cycle analysis. In this cutting-edge course, students are introduced to the design and construction of ecologically sound structures. Students learn several natural building techniques and gain hands-on experience working alongside knowledgeable builders at Sirius Community – a dynamic, sustainable ecovillage in the hills of western Massachusetts. This is one of the few opportunities in the country to earn college credit in sustainable design and construction while putting your learning into action in a real-world environment.



Program Highlights

- ☀ Gain hands on green building experience at an ecovillage community “campus” that specializes in natural building technologies
- ☀ Learn design processes and construction methods for varying climates that include integrated appropriate technologies
- ☀ Gain experience working with cob, earth plasters, timber frame, stone construction and more
- ☀ Immerse yourself in the joyful rhythms of ecovillage life and use your skills to contribute to a local building project



Academic Credit and Program Dates

Earn 4 transferable credits through the University of Massachusetts Amherst

Course: Sustainable Design and Construction (Build. Const. Tech. 496A)



Summer — 3 weeks. see Website for dates

Living Routes is an independent, non-profit educational organization whose academic programs are accredited by UMassAmherst.

Sirius Community

Sirius is an Intentional Community of 25 adults and children, based on respect for the individual, cooperation with nature, and spiritual growth. The ecovillage practices sustainable techniques including organic tilth and co-creative gardens, passive and active solar architecture, composting toilets, rain and wastewater cycling, off-grid energy, water catchment, greenhouse bioshelter and season extending techniques. Sirius has over 15 buildings showcasing green & natural building technologies and design. As an educational center, Sirius offers a wide array of workshops, internships, and short courses on sustainable living and design.



Application Deadline

(rolling admissions, contact us for late availability)

March 15

Costs

Tuition and Room & Board* . . . see Website
UMassAmherst credit included

* Need-based scholarships are available

Faculty

Ryan Harb M.S., Green Building, University of Massachusetts Amherst; B.B.A., Business Management, University of Massachusetts Amherst; Permaculture Design Certification, Shutesbury, Massachusetts; Permaculture Instructor Certification, Sandstone, Minnesota. As a UMass Amherst Sustainability Specialist, Harb implemented the first student-led permaculture garden that supplies produce to its dining commons by sheet mulching a conventional $\frac{1}{4}$ acre lawn to create a thriving, productive and edible landscape. He is passionate about solving the world's social and environmental issues and is constantly inspired by others who are making a positive difference. Harb teaches courses in sustainable design and permaculture and is the first person in the country to hold a Master of Science degree in Green Building. He lives at Sirius Ecovillage and believes in modeling sustainability to learners of all ages.

Kay Cafasso, B.S., Environmental Geosciences Boston College; Natural Building and Solar Home Design Certification, Solar International; Permaculture Design Certification, Naropa University. Cafasso is a natural builder, a certified permaculture design course instructor, and a designer of ecological landscapes. She holds certificates in Solar Home Design and Natural Building Construction and has many years of experience specializing in earth plasters and natural finishes for straw bale and other natural buildings. After documenting ecological design applications in homes and landscapes in arid, temperate and tropical climates worldwide, Cafasso founded Sowing Solutions, offering education and ecological design and consultation services for homeowners and land stewards. She also lives and works at Sirius Ecovillage, host community to the Living Routes Programs.

Course Topics

What is Green Building

We will take you on an ecological journey through the entire green building process: from site selection and laying the foundation to selecting appropriate materials and conducting a life cycle analysis and installation skills

Green Structures: Simple to Complex

Green building at its simplest form: primitive shelter building, site analysis, passive solar architecture, patterning for energy efficiency, renewable energy technologies

Natural Building:

Exploration of natural building materials, their properties and their 'roles' as structural components. Students gain experience in timber frame, straw bale and cob construction

Community Strategies:

Eco-village and community design; master plans and how they evolve over time. Group design project and presentation



"I found it incredibly valuable to discuss and build the primitive hut in the same day. I can tell that the curriculum was well planned and that everything we learn will be valuable and applicable to what we do; no bogus busy work like in most classes. I can already tell that our stay at Sirius will be a life changing experience and that the bonds we form will be everlasting. This place brings me true joy and replenishes my faith in humanity."—Alum, 2010