

CEE 4264 Sustainable Land Development

What is Sustainable Land Development? Sustainability is the study of how humans interact with their environment in a way that does not deplete renewable resources in either quantity or quality, while also maintaining a high level of environmental stewardship. Land Development intensifies the pre-development use of a parcel of land into another use that is economically beneficial. In the absence of specific design strategies, this intensification of land use is inherently unsustainable. Sustainable Land Development is a growing area of study that alters the use of land while seeking to maintain the pre-development quality of environment. This course teaches some of the key design elements and techniques for sustainable land development, and will allow students to demonstrate their understanding through conceptual design. Senior students wishing to learn about sustainability as it relates to land development will want to consider this course.

Course Objectives:

1. Gain an understanding of the land development design process and the various factors that impact a developed site's long-term sustainability.
2. Study the application of Best Management Practices (BMPs) and Green Technologies in minimizing the impact of land development on the environment.
3. Perform basic calculations and schematic design of Green Construction principles.
4. Prepare a conceptual site layout, giving specific attention to linkage, density, mixed land use, and other sustainable elements.
5. Recognize the impact of land use intensification on surface runoff patterns, air quality and microclimate, and living resources.
6. Visit local sustainable development projects.



Course instructor Meredith Jones stand in front of the entrance to the Village at Tom's Creek – a sustainable development in Blacksburg

Why take this course? Society's increasing focus on "green living" continues to gain momentum. This is a special course offering intended to give students interested in land development a decided advantage in their job hunt!