This course is offered by faculty from the School of Public and International Affairs at Virginia Tech and the University of Virginia School of Architecture. The instructors are Ralph Buehler, Associate Professor and Todd Schenk, Assistant Professor in Urban Affairs and Planning from Virginia Tech, and Suzanne Moomaw, Associate Professor in Urban and Environmental Planning from the University of Virginia.

Course overview

The course analyzes trends, planning, and policies in sustainable urban development, water resource management, and sustainable transport in Europe. It is divided into 4 interrelated modules and includes travel to several locations to examine various case studies. The modules are:

1. Fundamentals of sustainability and environmental policy-making in modern Europe (online prior to trip and at the European Parliament in Strasbourg, France);
2. Addressing Europe’s wicked sustainability challenges and the roles for civil society (Italy, Hungary and the Czech Republic).
3. Water resource management: the sustainable management and provision of this critical resource (Venice and Switzerland); and
4. Making urban transport sustainable: How European cities promote walking, cycling, and public transport (Germany and Switzerland).

The first module of the class will be taught primarily online prior to the trip. It will provide an introduction to prepare students for their trip to Europe. It will focus on the differences in government structure, planning and sustainability between the USA and Europe. Students will also develop study questions and research goals for their trips. In Europe, this module will be reinforced via a field trip to the European Parliament in Strasbourg, France.

The second module will focus on how Europeans are addressing some of the wicked sustainability challenges they face. The group will visit Venice, Italy, to learn about the MOSE flood protection project and consider the pros and cons of this major infrastructure project being undertaken to protect this culturally invaluable ‘sinking’ city and surrounding lagoon. The industrial city of Ostrava, Czech Republic provides interesting insights into the balancing act communities face between economic, ecological and social concerns. The region is grappling with how much to push its heavy industries to clean up while addressing current and historical pollution problems. They are also doing innovative things to advance social and
cultural wellbeing in the abandoned spaces of former industrial sites. The group will meet with experts from a large international organization based in Budapest, Hungary that is helping to advance sustainability-related policy-making in new and future EU member states. The group the roles for civil society by visiting an environmental NGO in Ostrava, and activists working on both refugee and Roma rights issues in Budapest.

The third module will explore sustainable natural systems in Venice, the Ticino Region of Switzerland, and Zurich. The primary focus is on water supply, risk, and use. Why this theme in this place? Switzerland is one of the European countries that has taken the lead in maintaining and preserving its water supply. Called the “water tower” of Europe, Switzerland has around six percent of the continent’s freshwater resources. For our study on water, we will examine the following topics related to freshwater using research and case studies from around the world: global availability; significant threats; negative human impact; allocation and regulation; distribution; and water equity. We will begin in Venice with careful observations of water as both a resource and challenge to urban sustainability and explore the positive impact that cross-jurisdictional cooperation can have. In Ticino we will focus on water quality, a topic that will also be explored with researchers at the Swiss Federal Institute of Aquatic Research in Zurich. During this module of the program, we will have the opportunity to have a learning laboratory literally in our neighborhood with Lake Lugano in Ticino and Lake Zurich in Zurich.

The fourth module will focus on transport policy, planning, and sustainability. The module will begin with a discussion of the transport and land-use connection and the concept of sustainable transport. We will then focus on active transport (walking and cycling) and public transport. Throughout the module students will work in groups to evaluate the transferability of innovative European transport policies to the USA. Tentative innovative policies and policy areas include: high speed rail, bike sharing, car sharing, traffic calming, tolling trucks in Switzerland and Germany, congestion pricing in London (UK), shared spaces, and innovative land-use planning systems. For each policy, planning approach, and case study in Europe we will attempt to determine how and if European policies could work in America. Our field trip to Freiburg, Germany, and our meetings with transport policy makers and planners there serve as a capstone for this segment.

Please note: We are planning this trip 8 months in advance. Thus exact locations and site visits are subject to change.
Learning Objectives

Having successfully completed this course, a student will be able to:

- Compare and contrast how Europeans practice urban planning, and public policy-making more broadly, differently than is done in the U.S.;
- Describe how the European Union influences environmental policy in member states (and beyond), and how this is shaping the dissemination of ‘sustainability’;
- Describe the roles civil society organizations play in advancing sustainability in Europe, and compare and contrast to those they play in the U.S.;
- Analyze the complex tradeoffs and implications of addressing some of the wicked problems decision-makers face;
- Reflect on sustainability lessons from the European context to the U.S. context;
- Understand the range of issues related to water and water management systems;
- Identify the obvious and not-so-obvious threats to the global water system;
- Determine possible courses of action for addressing water challenges in the U.S.;
- Analyze the problems faced by various urban transport systems in both the U.S. and Europe;
- Describe the interdependent development of transport systems and land-use patterns;
- Evaluate policies and plans directed at improving the current transport system; and
- Define the roles local, regional, state, and federal levels of government play in the provision of sustainable transport systems.

Reading Materials

Readings will be made available online via the Canvas course management system.

Assignments and Grading

The following weighting system will determine overall course performance:

10%  **Course blog entry**
Each student will be responsible for a one day summary entry on our blog website at [http://europestudies.wordpress.com/](http://europestudies.wordpress.com/). Moreover, each student will review another student’s blog entry and make suggestions for improvement. Each blog entry should be about 1 letter size page in length and summarize the key points learned from the assigned day.
15% **Module 1 (online, pre-departure)**
- Active participation in the online portion of the course taught prior to departure is required preparation for the trip.
- Students will be expected to complete the assigned readings, post questions and responses as stipulated, and complete the final quiz.

25% **Module 2 (Wicked sustainability challenges and the roles for civil society, led by Todd Schenk)**
- Class participation, attendance, completing readings prior to sessions (25%)
- Comparison of EU and U.S. policies in a chosen policy domain (25%)
- Paper introducing a ‘wicked’ problem, and examining how the environmental, social and economic dimensions interconnect and might be concurrently addressed (50%)

25% **Module 3 (Sustainable water systems, led by Suzanne Moomaw)**
- Class participation, attendance, completing readings prior to sessions (30%)
- Developing an analytical framework for addressing a water issue facing a U.S. city (30%);
- Team project on improving water quality in the U.S. (40%).

25% **Module 4 (Sustainable transport, led by Ralph Buehler)**
- Class participation, attendance, completing readings prior to sessions (30%)
- Developing, applying, and evaluating a walkability tool (30%)
- Best practice case study analysis and presentation (group project) (40%)

Students who register for six credits will be expected to complete more comprehensive versions of each of the above assignments. In particular, the wicked problem paper should be much more substantial, involving greater research.

We will assign grades as follows:
- A 94-100 points
- A- 90-93.99 points
- B+ 87-89.99 points
- B 82-86.99 points
- B- 78-81.99 points
- C+ 75-77.99 points
- C 70-74.99 points
- Fail< 70 points
Field Trips

The majority of this course will involve ‘field trips’, with stays overnight in Freiburg (Germany), Riva San Vitale and and Zurich (Switzerland), Venice (Italy), Budapest (Hungary), and Prague and Ostrava (Czech Republic). Traveling in a large group requires students to be punctual. For each trip you will receive an itinerary.

Students are expected to be on time for all appointments and for all trains. This is especially important for long distance intercity train trips; tardiness may result in the entire group missing important train connections, which can result in additional costs for the entire group (rebooking fees, additional nights at hotels, cancellation fees etc.).

Honor Code

The tenets of the Virginia Tech and University of Virginia Honor Codes will be strictly enforced in this course, and all assignments shall be subject to the stipulations of the Undergraduate and Graduate Honor Codes as outlined in the Undergraduate and Graduate Catalogs. Please contact the instructors immediately if you have questions.

Student Conduct

We will be guests in Europe and need to respect local culture and traditions. We are here to learn and enjoy the European way of life, but are also representatives of Virginia Tech, the University of Virginia, and the United States of America, and should be on our best behavior in and outside of the classroom.

Special Accommodations

Students with special needs or circumstances are strongly encouraged to meet with an instructor well in advance of the trip. In all cases, please contact an instructor should you have any questions or concerns.