US/ES 304 FREIBURG GREEN CITY – SOCIAL, ECOLOGICAL AND ECONOMICAL ASPECTS OF SUSTAINABILITY
IES Abroad Freiburg

DESCRIPTION:
In this course we will take a look at the “Green City” Freiburg. The multi-faceted issues of sustainability will be presented and discussed. We will equally address environmental, economic and social sustainability. Through lectures and field trips, we will explore local projects and learn firsthand about urban planning, architecture, water and waste management, energy, mobility, green business and social innovations in Freiburg. As preparation of the excursions students will present individual topics in moderated sessions, focusing on the local perspective as well as on a global level, presenting both the problems and possible solutions.

CREDITS: 3 credits

CONTACT HOURS: 45 hours

LANGUAGE OF INSTRUCTION: English

PREREQUISITES: None

METHOD OF PRESENTATION:
- Lecture
- Discussion
- Student presentations
- Field trips

REQUIRED WORK AND FORM OF ASSESSMENT:
- Course participation - 10%
- Reflection Paper -10%
- Final Exam – 30%
- Term Paper and Presentation - 40%
- Moderation of one Presentation -10%

Course Participation
During discussions based on the required readings, lectures, personal experiences and field trips.

Reflection Paper
It should be two-pages in length and should reflect on one or several of the excursions you will go on in the next few weeks. This is an opportunity to think about the lessons learned and how they can be applied elsewhere.

Final Exam
Written exam at the end of the semester. The instructor will provide detailed information at the end of the term.

Term Paper and Presentation
Each student is assigned one presentation on either a case study or discussion topic. Presentations must be prepared with a handout. Each student is allowed ca. 10 minutes for presenting their topic. Term papers are 8 - 10 pages long papers based on the chosen topic for presentation in class. Together with the presentation, students turn in a short outline of the paper consisting of a thesis statement and at least three sources used for the presentation. Deadline for the papers is the last day of the course.

Moderation of one Presentation
For every presentation, one student will be assigned to both introduce the topic and lead a discussion after the presentation is over. The introduction can be short summary of what the presenter will talk about or be an activity that ties into the discussion at the end.
LEARNING OUTCOMES:
By the end of the course students will be able to:
• Define the foundations of environmental policy
• Recognize what constitutes Freiburg as a Green City
• Critically discuss green business and citizen initiatives in and around Freiburg through first-hand experience
• Assess environmental policy outcomes through critical reflection
• Give examples of possibilities and limits regarding the transfer to other cities
• Know about the ecological, economical and social dimensions of sustainability in urban areas and define possible solutions

ATTENDANCE POLICY:
IES Abroad courses are designed to take advantage of the contributions of the instructors, and the lecture/discussion format is regarded as the primary mode of instruction. Regular class attendance is mandatory. For every day of unexcused absence the final grade in the course will be reduced by one fraction of a grade (i.e. A becomes A -). Tests/presentations missed during unexcused absences cannot be made up. If a student misses a class it is their responsibility to catch up on everything that was covered in class. If a student cannot attend class due to illness then they should arrange to see a doctor who can issue a doctor’s note. Without a doctor’s note, an absence will count as unexcused absence. If a student misses more than 25% of class time, whether excused or unexcused, the student will receive an F in the course.

Absences due to religious observances and family emergencies may be excusable at the discretion of the Center Director.

CONTENT:

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Program</th>
<th>Required Readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>1. Welcome and introduction of the seminar. Presentation of topics for student presentations 2. Decision about student presentations</td>
<td>Carol Hager &amp; Mary Alice Haddad; 2015 Nimby is beautiful, Chapter 2: From NIMBY to Networks: Protest and Innovation in German Energy Politics, pp 33-59</td>
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<tr>
<td>Day</td>
<td>Program</td>
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<td></td>
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| Monday  | 1. Student presentation “Biophilic Cities”  
2. Student presentation “Urban and suburban agriculture”  
3. Guest Lecture with Luciano Ibarra about Garden Coop Freiburg and Community supported agriculture  
4. Excursion by tramway: Urban agriculture                                                                                                                                 |
| Tuesday | 1. Student presentation “Waste management”  
2. Lecture: “Waste management in Freiburg”  
3. Trip by **rented bikes**: “Waste management”                                                                                                                                 |
| Wednesday| 1. Student presentation “Social problems of urban agglomerations”  
2. Student presentation "Ebenezer Howard - The Garden City of Tomorrow and Le Corbusier”  
3. Trip by tramway: “Historical concepts of urban planning the actual situation in Gardencity Haslach and Weingarten” |
| Thursday| 1. Student presentation “Sustainable urban planning”  
2. Lecture: “Freiburg’s new districts”  
3. Excursion by tramway: “District Rieselfeld with district hunt”                                                                                                                                 |
| Friday  | 1. Student presentation “Alternative housing concepts: Cooperatives and Baugemeinschaften”                                                                                                                         |

**Stadt Freiburg im Breisgau (2010): Environmental Policy in Freiburg: pp 40-52**


**Stadt Freiburg (2007): The new district of Freiburg-Rieselfeld: a case study of successful, sustainable urban development**

**Simon Field: Case Study Vauban: pp 96-106**
2. Student presentation “Sustainable architecture”
3. Student presentation “Climate change in cities: Mitigation and adaptation strategies”

Tuesday
1. Trip by tramway: “Vauban and visit of sustainable housing projects”

Wednesday
1. Time to prepare for the final exam

Thursday
1. Final exam
2. Evaluation of the seminar
3. Final wrap-up with Coffee or Ice-Cream

COURSE-RELATED TRIPS:
- Trip by foot: “Pedestrian zone and Green hotel”: Visit of the historical center of Freiburg and the Hotel Victoria one of the most environmental friendly hotels of the world.
- Trip by tramway: “Green business”: Visit of SI-Module – a company in the field of solar energy  
- Trip by foot: “Mobility in Freiburg”
- Trip by tramway: “Urban agriculture”
- Trip by rented bikes: “Waste management”
- Trip by tramway: “Historical concepts of urban planning the actual situation in Gardencity Haslach and Weingarten”
- Trip by tramway: “District Rieselfeld with district hunt”
- Trip by tramway: “Vauban and visit of sustainable housing projects”

REQUIRED READINGS:
- Carol Hager & Mary Alice Haddad; 2015 Nimby is beautiful, Chapter 2: From NIMBY to Networks: Protest and Innovation in German Energy Politics, pp 33-59
- Simon Field: Case Study Vauban: pp 96-106
- Stadt Freiburg (2007): The new district of Freiburg-Rieselfeld: a case study of successful, sustainable urban development
- Stadt Freiburg im Breisgau (2010): Environmental Policy in Freiburg: pp 40-52
- Stadt Freiburg im Breisgau (2017): Green City Freiburg. Approaches to Sustainability, Freiburg: Freiburg Wirtschaft Touristik und Messe GmbH & Co. KG (brochure), pp 2-11

RECOMMENDED READINGS FOR PRESENTATIONS:
1. Renewable energies in urban areas
2. Green Economy and sustainable Business
- UN Division for Sustainable Development (2012): A guidebook to the Green Economy
- United Nations Environment Program (2010): Developing Countries Success Stories
- Muff, K (2013): Building Sustainable Legacies (BSL) - The new frontier of societal value co-creation


3. Public transportation
- Buehler, R.; Pucher, J; (2011): Sustainable Transport in Freiburg: Lessons from Germany’s Environmental Capital

4. Planning for Pedestrians and cyclists:
- City of Copenhagen (2013): Focus on cycling - Copenhagen Guidelines for the Design of Road Projects
- Buehler, R.; Pucher, J; (2011): Sustainable Transport in Freiburg: Lessons from Germany’s Environmental Capital
- ICLEI (2013): Freiburg, Germany - Cycling 2020 - a concept fit for the future
- U.S. Department of Transportation (2010): Public Policies for Pedestrian and Bicyclist Safety and Mobility
- NZ Transport Agency (2009): Pedestrian planning and design guide
- Wisconsin Department of Transportation (2010): Wisconsin Guide to Pedestrian Best Practices
- Alliance for biking and walking: [http://www.bikewalkalliance.org/](http://www.bikewalkalliance.org/)
- National Association of City Transportation Officials: [http://nacto.org/](http://nacto.org/)

5. Biophilic Cities

6. Urban and suburban agriculture
- IAASTD (2009): Agriculture at a Crossroads
- Community Supported Agriculture for Europe project (2013): European Handbook on Community Supported Agriculture
- Soil association (2011): The impact of community supported agriculture
- Casaza, C.; Piangiani, S. (2016): Bottom-up and top-down approaches for urban agriculture
• Ackermann, K. (2012): The Potential for Urban Agriculture in New York City

7. Waste management
• Ferreira da Cruz, N.; Ferreira, S.; Cabral, M.; Simões, P. and Marques, R.C. (2014): Packaging waste recycling in Europe: Is the industry paying for it?
• Umweltbundesamt (2010): Climate Protection Potential in the Waste Management Sector
• Stadt Freiburg im Breisgau (2010): Environmental Policy in Freiburg
• Stadt Freiburg im Breisgau (2017): Green City Freiburg. Approaches to Sustainability

8. Social problems of urban agglomerations
• United Nations Human Settlements Program (2012): Streets as tools for urban transformation in slums
• Shepard, S.: Why is Gentrification a Problem?
• United Nations Human Settlements Program (2014): Woman and Housing – Towards an inclusive city

9. Urban visions from the past: Ebenezer Howard and Le Corbusier
• Howard, E: (1898): The Town-Country Magnet
• Le Corbusier (1929): A Contemporary City
• Guiton, J. (1981): The ideas of Le Corbusier on architecture and planning
• Le Corbusier (1931): Towards a new architecture

10. Sustainable urban planning today – best practices from around the world
• Academy of Urbanism, Stadt Freiburg (2010): The Freiburg Charter for sustainable urbanism
• Economist Intelligence Unit (2011): US and Canada Green City Index
• Calthorpe, P. and Fulton, W. (2001): Designing the Region is designing the neighborhood

11. Alternative housing concepts: Cooperatives and Baugemeinschaften
• Sazama, G. (1996): A Brief History of Affordable Housing Cooperatives in the United States
• CECODHAS Housing Europe, ICA Housing (2012): Profiles of a Movement: Co-operative Housing around the World

12. Green architecture

13. Climate change in cities: Mitigation and adaptation strategies
• United Nations Human Settlements Program (2015): Guiding Principles for Climate City Planning Action
• United Nations Human Settlements Program (2015): Integrating Climate Change into city development strategies (CDS)
• Kronsell, A. (2013): Legitimacy for climate policies: politics and participation in the Green City of Freiburg
• The World Bank (2010): Cities and Climate Change: An urgent agenda