Planning is about future. Any action we take today has an impact on our future. Planning is one approach to anticipate a possible future and coordinate today’s actions in a way that this future will be good for us. Environmental planning has a focus on those human actions and decisions that will alter our future environment.

Planning and design in the public realm means that we make decisions which affect the lives of other people. When we design a garden for a private client, we ought to follow the directions that he or she gives us. If that client wants a basketball court in the backyard instead of flowers, we will follow his or her wishes and integrate the court as good as possible in the garden—even if that might be tricky. But what about a public park? How do we decide that a basketball court will be built in a park instead of a rose garden? Does that decision belong to a local mayor, the DEP, a donor who might give money for new roses, or a local activist group agitating for basketball?

You get the picture. Such simple decisions already require us to identify values and criteria, understand processes of democratic legitimation, and consider what “the people” actually want. This decision-making becomes even more difficult when we consider long-term environmental effects. For example, does the basketball court lead to growth of impervious surface, which might increase flooding risks for future generations? Will the rose garden require pesticides and herbicides that may cause long-term damage to flora, fauna, or water quality? As responsible designers we pay attention to all these questions, however, very quickly all these interconnected decisions and possible consequences grow into a complex system which may turn out to be overwhelming. Structuring and organizing that complexity is one main aspect of environmental planning.

The studio will have a combination of environmental planning (573) and landscape architecture (550) students, celebrating the interdisciplinary collaboration between planning and design. We will explore differences between both approaches on a regional scale, discuss the value of collaboration between planning and design for developing an innovative greenway system.

**New Jersey Greenway System**

**Intermediate Landscape Architecture 550:331, Fall 2019, 5 Credits**

Dr. Wolfram Hoefer: whoefer@sebs.rutgers.edu and Vincent Javet: vjavet@sebs.rutgers.edu

**Goal 1:** Students will be able to analyze ecological and other landscape processes in order to substantively inform their design decisions.

**Goal 2:** Students will be able to craft designs at the regional scale that facilitate or enable desired ecological and social scenarios at multiple scales.

**Goal 3:** Students will understand and apply policies and planning recommendations that regulate the use and design of the landscape in order to develop more sustainable and implementable designs.

**Goal 4:** Students will be able to effectively communicate their designs and design principles.

The class also fulfills the core requirement experienced based learning: Development of problem solving skills; the ability to interpret data, information, and ideas. Submission of report of the experience is required.

This course is required for all students majoring in Landscape Architecture, it is the 3rd studio in the design studio sequence. For students of Environmental Planning & Design with the Landscape Planning Option this class is a suggested elective.
By now, you have learned all relevant basic knowledge needed for this class. The introduction into graphic representation and design studio gave you a handle on the design process and the graphic tools needed for expressing your ideas. The class Fundamentals of Environmental Planning provided a basis for the understanding of planning and zoning and how these tools relate to state and federal regulations. You learned that making informed decisions on complex planning issues requires a thorough analysis of spatial and other information, the relevant GIS tools were taught in Fundamentals of Environmental Geomatics. Because you are so well prepared, we are expecting truly innovative concepts, well thought out solutions and exceptional graphics.
Greenway System for New Jersey

Why does the gentleman in the photo must bring his bicycle to the park by car? It would be so much nicer, if the way to the park would already be a pleasant experience—and it would be more sustainable. New Jersey has substantial open space, but too often it is fragmented and difficult to reach. Connections between parks and into residential neighborhoods are missing or need to be improved.

Wildlife and plants would also benefit from better connections. We all know that habitat fragmentation can be a substantial threat to animal and plant populations. Developing appropriate links between habitats will contribute to an overall improved habitat quality. Further, you may want to explore how greenways can also take on functions of green infrastructure.

The project of a greenway system for the whole State of New Jersey may sound daunting, but fortunately we don’t have to start from scratch. New Jersey has already several greenways; Hudson River Greenway, Henry Hudson Trail, Middlesex County Greenway, or the East Coast Greenway—just to name a view. There is plenty of information, but no overall concept. It is difficult for a resident to find existing greenway connections; Google maps is often your best bet. This lack of an overall concept and consistent communication is linked to a bigger politics and policies question: How to improve collaboration between local initiatives, municipal government, counties, and state agencies.

During your research you will discover that there are already many greenway initiatives, such as the rail to trail program. Our Rutgers colleagues at the Center for Remote Sensing and Spatial Analysis (CRSSA) have even developed a GIS planning tool for greenways. There is a lot to work from.

The assignments outline major steps in our planning process, but we still need to be flexible. If we as a class discover that a change in the process becomes necessary, we will discuss and adjust accordingly.
Assignment 1
Reading Questions

Individual
Given 09/3
Due:
R_1: Steiner Chapter 1: 9/5
R_2: Salmore Chapter 16&17: 9/17
R_3: Steiner Chapter 2: 9/24
R_4: Steiner Chapter 3: 10/1
R_5: Steiner Chapter 4: 10/8
R_6: Steiner Chapter 5: 10/15
R_7: Steiner Chapter 6: 10/22
R_8: Steiner Chapter 7: 11/5
R_9: Steiner Chapter 8 & Coda: 11/12

Deliverables:
• Minimum of 60 word question(s) about the reading.
• Each question must be a complete sentence.
• Please submit question to R:\331Fall2019\StudentWork. File name: R_# LAST NAME

Evaluation Criteria:
• Question indicates an understanding of the reading
• Question brings the class discussion forward

The book by Frederick Steiner will foster our conversations about the process of environmental planning while the two chapters by Barbara Salmore highlight New Jersey particularities. To be ready for class discussion, please prepare at least one question per reading. Feel free to elaborate a little on that question and please post it at least four hours before the class meeting in our class folder. These questions will be important to support the discussion in class.
New Jersey is very diverse; our state is home to people from all walks of life and provides very different experiences. An urban downtown is a different landscape than the shore or a farm landscape, but it is also different from a suburban town. Each of them can be described as a different landscape type. The whole of New Jersey is made up of a variety of different landscape types. In your design team, develop between five and ten different landscape types that would reflect all of New Jersey when combined. Describe each of them in paragraph and find one image that serves as an icon for each type. The goal of this assignment is to understand and celebrate the New Jersey’s diversity.

Assignment 2
Landscape Typologies

Design Group
Given: 9/3
Due: 9/5

Deliverables:
- Approximately 800 word write up.
- The landscape typology statements must be in full sentences.
- Exactly one image to accompany each type. (approx. 8 1/2 x 11)
- Please provide a second copy of your text that can be cut in pieces and used for class discussion.

Evaluation Criteria:
- Clear description of distinct types.
- Combination of suggested types covers the state
- Image captures the type’s character

Assignment 3
Visionary Goals

Design Group
Given: 9/5
Due: 9/12

Deliverables:
- Approximately 800 word write up.
- Goals statements have to be in full sentences.
- Identification of information need to achieve goals
- Please provide a second copy of your information that can be cut in pieces and used for class discussion.

Evaluation Criteria:
- Set of goal statements
- A profound problem statement that identifies your priorities for the project
- Complete list of information needed for maps.
- A list of mapping criteria that is comprehensible

Assignment 2 has helped us to identify the different landscape types that make up New Jersey. Greenways can be the thread that helps to stitch it all together. For this assignment, each design team needs to discuss the question: What makes a good greenway? From the perspective of a professional experts, teams are charged to define goals for the creation of a successful greenway system. Describe aspects of greenways that are important for you as a responsible landscape architect/environmental planner who is aware of future challenges. Having defined this set of goals, explain what your priorities are: What is most important for you, what second, what third, etc.? The next question is: What do you need know in order to achieve your goals for a greenway system. Define a list of inventory maps for New Jersey with a short description of a useful legend for each map. You are not yet expected to produce all these maps, but your contribution will be essential to organize the work of assignment #4 in a fair and efficient way.
Assignment 4
Data Inventory

Inventory Group
Given 9/12
Due as PDF: 9/19
Prints due: 10/3

Deliverables:
• Data collection.
• Data documentation.
• Data dictionaries.
• 24”x36” paper maps.
• 200 words text per map

Evaluation Criteria:
• Relevance of available data collected.
• Completeness of data dictionary (all appropriate fields for all datasets)
• Cohesive selection of data themes for individual maps
• Map design (clarity, effective representation, and aesthetic quality).
• Oral presentation of inventory.

Rational decision-making requires correct and accessible information. Decisions based on false or incomplete information are most likely wrong. Of course, it is an illusion to think that you may gather all relevant information and that you can ground proof everything. Therefore, it is of utmost importance to identify and document the information source and to take into consideration possible limits of factual correctness and completeness.

Assignment # 3 helped us to identify a number of natural, cultural, and social systems that are relevant for the development of a greenway system. We discussed grouping those systems into appropriate inventory segments. Each group will select a segment and produce a set of preliminary inventory maps of the systems in that segment.

You will identify and collect GIS data from various sources (or produce them where necessary), document the data you have collected in a data dictionary, and produce maps representing those systems as well as interactions among them.

Data collection: you will gather appropriate GIS datasets and place them in a folder with the name of their inventory segment at R:\331_Env_Planning_Studio_2019\ClassData\GIS_DATA\inventory\.

Data documentation: you will use the data dictionary template in the Resources section of the Sakai site to document the location and basic information about each dataset you have collected (any necessary information should be found in the dataset’s metadata).

Data dictionaries should be submitted on the R-Drive for your inventory segment.
Maps: You will design 24”x36” paper maps representing the systems within their segment and interactions among those systems. This may require a single complex map or a number of individual maps, depending on the themes involved. These maps should be printed for presentation. In addition, a PDF of each map should be placed at R:\331_Env_Planning_Studio_2019\ClassData\Maps_Inventory.

Example Junior Studio fall 2018,
Nina Petracca, Jessica McPhee, Alex Baldwin

Example Junior Studio fall 2018,
Daniel Ilkow, Alya Williams, Evan Eden

Example Junior Studio fall 2018,
Adrianna Hull, Zoe Oddino, Jonathan Connot
Assignment 5
Case Studies/ Tools

Individual
Given: 9/19
Due: 9/26
Presentations: 9/26 & 10/1

Deliverables:
• 5 PowerPoint slides.
• 1 11x17 board to be pinned up with Illustrations and corresponding text.
• Material must include graphic of location, length and 1 section of existing conditions
• Oral presentation and leading of class discussion.

Evaluation Criteria:
• Comprehensive rational of investigation.
• Section is correct and to scale
• How well the gathered information is made accessible through text.
• Quality of oral presentation.

Assignment 6
Suitability Maps

Design Group
Given: 10/3
Due: 10/10

Deliverables:
• Between two and five suitability maps
• Outline of values and criteria for suitability
• 200 words text per map

Evaluation Criteria:
• Relevance of suitability topic.
• Cohesive selection of suitability themes for individual maps
• Comprehensive assessment rational.
• Map design (clarity, effective representation, and aesthetic quality).

By now we have discovered that New Jersey already has a rich collection of greenways. Each student will pick one existing greenway and research its location and characteristics. Please document spatial qualities using photos, at least one section and other suitable illustrations. Is the greenway easy to use or are there challenges and obstacles that make accessibility difficult? You may discover that a greenway may be marked on a map, but that reality does not keep that promise. Make sure you note the difference between aspiration and fulfillment.

If possible, find out who is responsible for developing and managing the greenway. Is it part of a park system or does it link to a bicycle network?

This exercise will show us that there are already many miles of greenway in the state, we can take that as the starting point for our greenway network.

In class we will discuss our conceptional approach. One option is to divide the state in “greenway planning regions” or we may prefer to work with statewide greenway themes that can be overlaid, or we come up with something completely different.

Chapter 3 of our textbook outlines the discovery of opportunities and constraints when determining suitability for a particular land use; a greenway can also be considerer a use of a liner stretch of land.

Suitability maps are based on values. A good set of suitability maps allows the discovery of conflicting values. For example, river corridors may be the best place for new roads because floodplains show less settlement, there is no need to move people for a new road, leading to lower cost. At the same time, river corridors are the worst place for new roads because riparian zones and forest buffers are essential for flood control and water quality. Suitability maps allow making informed decisions and force the planner to rank his/her values. These values must be clearly identified and discussed in your groups. Don’t shy away from controversial discussions, but make sure that they are conducted in a professional and collegial manner.

Example Junior Studio fall 2017, Devin Fields, Wes Mascio, Eamon Epstein, Jason Cincotta

Zoning is one tool of many, example Little Ferry.
Assignment 8a
Test Designs

LA Students
Given: 11/3
Due: 11/8

Deliverables:
- One plan at appropriate scale of the interventions.
- Minimum of one additional representation that illustrates the interventions.
- Documentation of iterative process.

Evaluation Criteria:
- Relationship to system intervention.
- Visual and verbal presentation.
- Appropriateness to site.

The assignment 8a puts your vision to the test through design. You will use the iterative process of design to explore innovative site scale designs based on your group’s vision. The experience and knowledge about the State of New Jersey you gained so far will inform your site design. Further, this is an opportunity to assess the quality of your overall concept and make improvements based on your site designs.

Design development, design 1, spring 2009, Charles Oropallo
Design development, design 2, spring 2009, Charles Oropallo
Design development, design 3, spring 2009, Charles Oropallo
Assignment 8b
Implementation Strategy

EP Students
Given 10/31
Due 11/12

This assignment puts your vision to the test through implementation strategies. A pie in the sky vision can set lofty goals, but how can those goals be achieved? Assignment # 5 gave you a tool box of possible implementation strategies. The planners of each team are charged with developing a clear path toward reality. You will explore which existing level of administration could be utilized to support your project and/or which policy should be adjusted. Your task is to identify community support and administrative implementation strategies.

Assignment 9
Merge into Master Plan(s)

Class
Given 11/12
Pin Up 11/19???
Due 12/4 at 3:00 pm
Final Presentation 12/13???

By now, it will have become evident that some of your interventions go well with the work of other design groups. In class, we will discuss the possibility to form several “interventions clusters.” Each cluster might describe a set of interventions, which are competitive to the solutions of another cluster. You do not have to agree with some solutions of your classmates, but we have to understand where and why you disagree.

Deliverables:
- Strategy outline.
- List and description of supportive groups.
- Supporting text.

Evaluation Criteria:
- Completeness of consideration.
- Quality of descriptive text.

Deliverables:
- One colored print and one digital version that is reproducible (PDF & JPEG file).
- Supporting text.

Evaluation criteria:
- Innovation carried through
- Graphics/readability.
- Completeness of information.
- Documentation of iterative process.

The image above is the "People to Parks" Master Plan Board, presented on Dec. 16th, 2016.
Final product will be a report that documents acquired data, research papers, design process and reproductions of models and drawings. Please follow the Chicago Manual of Style for any written document you produce. Layout details (chapters, headlines, font, graphics, etc.) will be discussed in class. For a professional appearance of the final booklet, consistency is essential.

**Assignment 10**
Documentation

Individual & Groups
Given 09/04
Due 12/10 at 3:00 pm

**Deliverables:**
- One colored print of the complete report.
- A digital version that is reproducible (PDF file).

**Evaluation criteria:**
- Completeness of information.
- Sheet layout.
- Graphics/readability.
- Digital organization (all files at appropriate location).

Examples Junior Studio fall 2017, developing layout concept
**Required Reading**

Steiner, Frederick 2018: Making Plans. How to engage with landscape, design, and the urban environment. University of Texas Press, Austin.  
(Please purchase, reading responses for each chapter required ISBN-10: 1477314318)

(chapter 16 and 17 as PDF on R-Drive, reading response required)

**Suggested Reading**


**Events**

- **Thursday 09/5**  
  Pin up Landscape Typologies

- **Tuesday 9/11**  
  Field Trip Exhibition Design With Nature Now, Upenn Philadelphia  
  https://mcharg.upenn.edu/exhibitions

- **Tue 9/24**  
  Bicycle tour to Middlesex Greenway in Metuchen

- **Thu 9/26 & Tue 10/1**  
  Present case studies & tools

- **Thursday 10/3**  
  Pin up GIS inventory

- **Tuesday 10/22**  
  Pin up vision maps, Billy Fleming in Class

- **Thursday 10/3**  
  Pin up revised GIS inventory

- **Monday 10/28**  
  Midterm drawings due 3:00 pm (Monday!)

- **Tuesday 10/29**  
  Midterm presentation

- **Tuesday 11/12**  
  Pin up site designs & strategies

- **Tuesday 11/19**  
  Pin up final Master Plan(s)

- **Tuesday 12/04 at 3:30 pm**  
  Final boards due

- **Tuesday 12/10 at 3:00 pm**  
  Booklet due

- **Friday 12/13 at 2:00 pm**  
  Final presentation

**Lectures**

- **09/03** Introduction into studio and schedule

- **09/12** GIS Data Collection, management, and mapping

- **09/17** Green Systems

- **9/26 & 10/1** Students present case studies

- **10/08** The Promise of Suburbia

- **10/16** IBA Emscher Park. Transformation of a post-industrial region.  
  10/16 IBA Emscher Park. Transformation of a post-industrial region.

- **10/23** no lecture, pin up

- **10/30** Midterm Review

- **11/05** Zoning and Planning approaches in New Jersey

- **11/13** Design and Meaning

- **11/27** The –isms:

  * Date changes may occur due to group process and availability of project partners.

**Links**

- http://www.gardenstategreenways.org/index.htm
- https://www.greenway.org/states/new-jersey
- https://crssa.rutgers.edu/index.html

It is expected that you research additional literature according to your group and individual approaches!
Except for circumstances truly beyond the student’s control, all assignments are due at the dates and times specified throughout the semester. Projects that are incomplete on the due date should still be submitted on the date it is due to receive at least partial credit. Any work submitted late will be penalized a grade step for each day past due. Working beyond a due date is both unrealistic in a professional setting and unfair to your classmates in this course.

If you encounter any personal circumstances that inhibit your ability to fulfill the requirements of this course, you should immediately contact the instructor. In addition, any student with a special need, circumstance, or disability, should make an appointment to see me during the first week of classes. Studios provide a very effective but also very intense learning environment and all of us need to feel encouraged to support a studio culture that provides space for every individual to unfold his or her creativity.

Studio sessions, lectures, and the common lectures all count as individual class sessions for this course. More than three unexcused absences will result in a step reduction in your semester grade. Each additional three absences will result in another step reduction. Content missed due to an excused absence will be made available however, any missed quizzes or in-class assignments will not. In addition, an excused absence does not prolong an assigned due date for any assignment.

All equipment must be used appropriately according to the student handbook. Access to the fabrication lab is granted after successfully passing the safety instructions. Access is monitored and can be revoked if students use tools they are not qualified for or if students do not clean after themselves.

If there is a plotting problem, PDF files can be placed on the appropriate folder in the R-Drive and the assignment will not be considered late. However, a printed version is due by the following class period and the late penalty will be assessed thereafter.

It is requested that you will give proper reference to all sources (text and image) quoted in every drawing or text.

Submitted drawings, models, photographs, or written papers for any project assigned in Landscape Architecture courses are considered the property of the Department. The formatting of all digital submission must follow the department guidelines because they will be retained in its archives for exhibition and accreditation purposes. All information in this syllabus and course schedule is subject to change throughout the semester and will be announced in the scheduled class periods. It is your responsibility to stay informed!

A – Outstanding – This not only means fulfilling the requirements, but impressing and going beyond the initial expectations of the project. The student has demonstrated a superior grasp of the subject matter coupled with a high degree of creative or logical expression, and strong ability to present these ideas in an organized and analytical manner.

B – Very Good – The student has demonstrated a solid grasp of the material with an ability to organize and examine the material in an organized, critical, and constructive manner. The projects and in class performance reveal a solid understanding of the issues and related theories or literature.

C – Acceptable – The student has shown a moderate ability to grasp concepts and theories for the class, producing work that, while basically adequate, is not in any way exceptional. This performance in class display a basic familiarity with the relevant literature and techniques.

D – Unacceptable – The work demonstrates a minimal understanding of the fundamental nature of the material or the assignment with a performance that does not adequately examine the course material critically or constructively. Students cannot graduate from the Landscape Architecture program with 2 D’s in required 550-classes.

F – Failure – The student has demonstrated a lack of understanding or familiarity with course concepts and materials. Their performance has been inadequate. Failure is often the result of limited effort and poor attendance which may indicate that the student is not in the proper field of study.