

**ART370**  
**Architectural Design Theory**  
Spring 2019

Basic vocabulary of architectural design. Fundamental elements of space and form. Space in relation to light, view, openings, and enclosures. The organization of space, and the elements and relationships of circulation, as well as proportion and scale. Fundamental elements of architecture through the ages and across cultures. Case studies begin with vernacular contexts followed by changes in forms driven by cultural and esthetic preferences over time. Influences of new materials and architectural standards and practices, with emphasis on sustainability and organic architecture. *Course Credit: 3, Prerequisites: none*

**STUDENT LEARNING OBJECTIVES / OUTCOMES**

- Understanding the vocabulary of the architectural design process
- Develop architectural forms from abstract ideas
- Understand properties of form
- Understand relationships between form and space
- Understand organization of form and space
- Understand circulation through space
- Understand proportion and scale
- Create architectural models
- Develop skills in architectural critique
- Appreciate various cultural norms and architectural vernacular
- Understand and promote sustainability and stewardship of communities and natural resources
- Understand and develop skills in organic architectural design

**PROFESSORS**

**Joseph T. Wunderlich PhD**

*Associate Professor of Engineering and Computer Science, Architectural Studies Minor Coordinator*

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Calendar and Office Hours: [http://users.etown.edu/w/wunderjt/schedules/CALENDAR3\\_s19\\_web.htm](http://users.etown.edu/w/wunderjt/schedules/CALENDAR3_s19_web.htm)

**Patricia L. Ricci PhD**

*Associate Professor of the History of Art, Director of the Fine Arts Division, Architectural Studies Minor Coordinator*

Office: Steinman, Department of Fine Arts Phone: 717-361-1517 Email: [riccipl@etown.edu](mailto:riccipl@etown.edu)

Calendar and Office Hours: TBA

**Visiting Architects and other Professionals invited for guest lectures and critiques**

**MEETING TIMES**

W 4:00-6:30PM in Hoover 114 and E273

**BOOKS** (required purchases)

[1] Ching, Francis D.K. *Architecture: Form, Space, and Order*. Wiley; 4 edition (September 29, 2014) **ISBN-10:** 9781118745083

[2] Wright, Frank Lloyd. *The Natural House*. Bramhall House, 1974. **ISBN-10:** 0517020785

**MATERIALS and TOOLS**

We will supply you with some materials and lend you some tools, however you may need to buy some materials and a few small tools.

**DELIVERABLES**

- (10% of Course Grade) **ATTENDANCE and PARTICIPATION**
- (20% of Course Grade) **IN-CLASS and HOMEWORK ASSIGNMENTS** with J Wunderlich PhD
  - [Japanese-Bridges](#)
  - [Massing-Models](#)
  - [Origami](#)
  - [Kirigami-Architecture](#)
  - [Sacred-Space](#)
  - [Joyful-Space](#)
  - [Great-Window](#)
- (20% of Course Grade) **RESEARCH PAPER**
  - Write a research paper on specific forms developed over time, by one specific Architect, or as part of a specific Architectural style., Individual projects only. Email you paper to both Dr Ricci and Dr. Wunderlich
- (50% of Course Grade) **SEMESTER PROJECT** [Cedar-Hill-Housing](#)
  - Judged by a panel of 12 judges

# COURSE OUTLINE

J Wunderlich PhD Lectures (Copyright 2019):

- I. **PRIMARY-ELEMENTS**
  - a. Points
  - b. Linear Elements
  - c. Planes
  - d. Volumetric Elements
  
- II. **FORM**
  - a. Properties of Form
  - b. Primary Shapes
  - c. Regular and Irregular Forms
  - d. Subtractive and Additive Forms
  - e. Centralized, Linear, Radial, Cluster, and Radial Forms
  - f. Collisions of Geometries
  - g. Articulation of Form
  - h. Surface Articulation
  
- III. **FORM & SPACE** ([pptx](#)-[audio](#) [pdf](#) [mp4](#) [YouTube](#))
  - a. Unity of Opposites
  - b. Vertical and Horizontal Forms Defining Space
  - c. Base, Elevated, Depressed, and Overhead Planes
  - d. Configuration and Shape of Planes
  - e. Openings
  - f. Degree of Enclosure
  
- IV. **ORGANIZATION**
  - a. Organization of Form and Space
  - b. Spatial Relations
  - c. Space within the Space
  - d. Interlocking Spaces
  - e. Adjacent Spaces
  - f. Spaces Linked by a Common Space
  - g. Spatial Organization
  
- V. **CIRCULATION**
  - a. Movement Through Space
  - b. Circulation Elements
  - c. Approach
  - d. Entrance
  - e. Configuration of the Path
  - f. Path-Space Relationships
  - g. Form of the Circulation Space
  
- VI. **PROPORTION & SCALE**
  - a. Material, Structural, and Manufactured Proportions
  - b. Golden Section
  - c. Renaissance
  - d. Modularity
  - e. Anthropometry
  - f. Visual Scale
  - g. Human Scale
  - h. Principles Axis
  - i. Symmetry
  - j. Hierarchy
  - k. Rhythm
  - l. Repetition
  - m. Transformation
  
- VII. **PRINCIPLES**
  
- VIII. **ORGANIC ARCHITECTURE** of *Frank Lloyd Wright*

## **COURSE GRADE**

(60-62)=D-, (63-67)=D, (68-69)=D+, (70-72)=C-, (73-77)=C, (78-79)=C+, (80-82)=B-, (83-87)=B, (88-89)=B+, (90-92)=A-, (93-100)=A  
(with any fractional part rounded to the nearest integer)

## **ATTENDANCE & PREPARATION**

Attendance is mandatory unless you are sick, have a family emergency, or ask permission to miss class in advance. The penalties applied will be subjective and in proportion to infractions, up to one full course letter grade total at the end of the semester.

## **SCHOOL CLOSURE / CLASS CANCELATION**

Additional readings and/or a special project will be assigned to cover any class cancelations

## **RELIGIOUS OBSERVATIONS**

The College is willing to accommodate individual religious beliefs and practices. It is your responsibility to meet with the class instructor in advance to request accommodation related to your religious observances that may conflict with this class, and to make appropriate plans to make up any missed work.

## **NO CELL PHONE OR LAPTOP USE IN CLASS**

**Texting, emailing, or web-surfing in class is a breach of classroom etiquette.** This will very much affect your grade (up to -5% of your course grade for repeated offenses). No laptop use is allowed without a documented need by Elizabethtown College student services. Research now shows that taking hand-written notes is better for learning:

<http://www.npr.org/2016/04/17/474525392/attention-students-put-your-laptops-away>

## **ACADEMIC HONESTY**

Elizabethtown College Pledge of Integrity: *"Elizabethtown College is a community engaged in a living and learning experience, the foundation of which is mutual trust and respect. Therefore, we will strive to behave toward one another with respect for the rights of others, and we promise to represent as our work only that which is indeed our own, refraining from all forms of lying, plagiarizing, and cheating."* [ See the [2016-17 Elizabethtown College Catalog](#), "Standards of Academic Integrity"

([http://catalog.etown.edu/content.php?catoid=10&navoid=507#Academic\\_Judicial\\_System](http://catalog.etown.edu/content.php?catoid=10&navoid=507#Academic_Judicial_System)) or [Academic Integrity at Elizabethtown College](#), 11<sup>th</sup> ed. (<https://www.etown.edu/offices/dean-of-students/files/academic-integrity-handbook.pdf>) ]

## **DISABILITIES**

Elizabethtown College welcomes otherwise qualified students with disabilities to participate in all of its courses, programs, services, and activities. If you have a documented disability and would like to request accommodations in order to access course material, activities, or requirements, please contact the Director of Disability Services, Lynne Davies, by phone (361-1227) or e-mail [daviesl@etown.edu](mailto:daviesl@etown.edu). If your documentation meets the college's documentation guidelines, you will be given a letter from Disability Services for each of your professors. Students experiencing certain documented temporary conditions, such as post-concussive symptoms, may also qualify for temporary academic accommodations and adjustments. As early as possible in the semester, set up an appointment to meet with me, the instructor, to discuss the academic adjustments specified in your accommodations letter as they pertain to my class.