

FALL 2022 Elizabethtown College Syllabus

EGR/ART 495 **Architecture Design Studio I**

Architectural design studio course with case studies and lectures typically (until 2023) not repeated any less than once every 4 years. Professional documentation, drawings, and defense of architectural designs.

Course Credit: 2

ART 371 **Architectural Materials & Methods**

(A separate course in other years, when EGR/ART495 Architecture Design Studio I contained a different lecture series)

Materials and methods in architectural design and construction. A balance of aesthetics, functionality, and cost-effectiveness are stressed, as well as seamlessly integrating the built environment with nature. Understanding of how a material's modular form, dimensions, and intrinsic qualities influence the design process. Case studies, and model-making using both hands-on materials and Revit 3D rendering & BIM (Building Information Modeling) software.

Course Credit: 3, Prerequisites: none



TIMES

Mondays 3:30-5:10pm or at alternate times announced; Additional work and times for Architectural Material & Methods students

PROFESSOR

Joseph T. Wunderlich PhD, Associate Professor of Engineering and Computer Science, Architectural Studies Coordinator
[Architecture Portfolio](#) [Architecture Website](#) [CV](#)

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Web site: <http://users.etown.edu/w/wunderjt> YouTube Channel: https://www.youtube.com/channel/UC_kM_k93zrelu40CVwuHQzg

Office Hours: [http://users.etown.edu/w/wunderjt/schedules/Wunderlich Schedule Card Fall 2022.pdf](http://users.etown.edu/w/wunderjt/schedules/Wunderlich%20Schedule%20Card%20Fall%202022.pdf)

COURSE OUTLINE

J Wunderlich Lectures (Copyrighted):

1. **STRUCTURAL DESIGN CONCEPTS** [pptx](#) [pdf](#) [mp4](#) [YouTube](#)
2. **FOUNDATIONS & SITEWORK** [pptx](#) [pdf](#) [mp4](#) [YouTube](#)
3. **WOOD #1 FUNDAMENTALS** [pptx](#) [pdf](#) [mp4](#) [YouTube](#)
4. **WOOD #2 HEAVY TIMBER CONSTRUCTION** [pptx](#) [pdf](#) [mp4](#) [YouTube](#)
5. **WOOD #3 LIGHT-FRAMING CONSTRUCTION** [pdf](#)
6. **"SKELETON BENEATH THE SKIN; The Bones of Barns and Farmhouses"** [pptx-w/audio](#) [pdf](#) [mp4](#) [YouTube](#)
7. [Upcoming Wunderlich book on Frank Lloyd Wright](#)
8. **MASONRY & CONCRETE #1 HISTORY** [pdf](#) [mp4](#) [YouTube](#)
9. **MASONRY & CONCRETE #2 STONE** [pdf](#) [mp4](#) [YouTube](#)
10. **MASONRY & CONCRETE #3 BRICK** [pptx-audio](#) [pdf](#) [mp4](#) [YouTube](#)
11. **MASONRY & CONCRETE #4 CONCRETE BLOCK** [pptx-audio](#) [pdf](#) [mp4](#) [YouTube](#)
12. **MASONRY & CONCRETE #5 CONCRETE** [pptx-audio](#) [pdf](#) [mp4](#) [YouTube](#)
 - i. Site-cast concrete framing
 - ii. Precast concrete framing
13. **STEEL & HIGH-RISES** [pptx-audio](#) [pdf](#) [mp4](#) [YouTube](#)
 - i. Steel frame construction
 - ii. Light gauge steel frame structures
14. **SHELL(Architecture) / ENVELOPE(Engineering)** [pptx-audio](#) [pdf](#) [mp4](#) [YouTube](#)
 - i. Roofing
 - ii. Glass
 - iii. Windows and doors
 - iv. Cladding with masonry and concrete
 - v. Cladding with metal and glass
15. **INTERIORS** [pptx-audio](#) [pdf](#) [mp4](#) [YouTube](#)
 - Sequencing all interior finishes
 - Interior walls and partitions
 - Finish ceilings and floors

TEXTBOOK *(required purchase)*

Allan, Edward and Iana, Joseph, *Fundamentals of Building Construction: Materials and Methods*. Wiley; **7th** edition (October 15, 2019). ISBN-10: 1119446198 ISBN-13: 9781119446194



LEARNING OBJECTIVES

- Fundamentals of Building Materials and Construction Methods
- Architectural design that specifies sustainable materials & methods
 - LEED (Leadership in Energy & Environmental Design)
<https://new.usgbc.org/leed>

GRADES

ASSIGNMENTS & QUIZES *(50% of Course Grade – 500 points)*

- Each student must work independently

SEMESTER PROJECT *(50% of Course Grade – 500 points)*

- Each student must work independently

(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)

SCHOOL CLOSURE / CLASS CANCELCATION

Additional work assigned to cover any class cancelation

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

or Academic Integrity at Elizabethtown College, 11th ed.

<https://www.etown.edu/offices/dean-of-students/files/academic-integrity-handbook.pdf>

DISABILITY SERVICES, RELIGIOUS OBSERVANCES, and COVID

https://elizabethtown-my.sharepoint.com/:w:/p/personal/quimetc_etown_edu/EFZ-QooK1_VPjgwsWjz230wB3Rb6CIHsPvE0xunWCpr-UA?e=4%3acZjpW8&at=9

DISABILITY SERVICES: Elizabethtown College welcomes otherwise qualified students with disabilities and is committed to providing access for all students to courses, programs, services, and activities. If you have a documented disability such as a learning disability or chronic illness or a new circumstance such as a concussion and would like to request accommodations please contact the Director of Disability Services by phone (717-361-1227) or e-mail (daviesl@etown.edu). The Office of Disability Services can provide resources to you and facilitate communication with faculty about reasonable accommodations. After meeting with the Office of Disability Services, please set up an appointment to meet with me, the instructor, to discuss the accommodations as they pertain to my class.

RELIGIOUS OBSERVANCES: The College is eager to facilitate individual religious beliefs and practices whenever possible while retaining course student learning outcomes. It is your responsibility to meet with the class instructor in advance to request arrangements related to your religious observances that may conflict with this class, and to make appropriate plans to make up any missed work.

COVID-RELATED EXPECTATIONS: All students are expected to adhere to the established community expectations around safety, including: daily digital health reporting, physical distancing, proper wearing of facial coverings within buildings and classrooms and when within six feet of individuals outdoors, frequent handwashing, and participation in cleaning and sanitizing protocols as requested. You will be turned away from class if you do not have a face covering. Students diagnosed with a health condition that precludes mask wearing can contact Lynne Davies in Disability Services (daviesl@etown.edu) to request remote learning as a reasonable accommodation. **If you are exhibiting any symptoms of COVID or fail to pass the daily health screen, do not come to class.** Failure to adhere to the established community expectations around safety will result in notification of Campus Security and application of the student conduct process for failure to comply, endangering the well-being of others, and/or disorderly conduct. The student code of conduct applies also to participation in all virtual activities, including Zoom sessions and discussion boards.

MENTAL HEALTH & COUNSELING RESOURCES

Counseling Services provides a broad range of counseling and mental health support services that facilitate our students' personal, social, and academic development. Our licensed mental health professionals provide short-term individual counseling, group counseling, crisis intervention, and consultation to currently enrolled students for no additional charge. Counseling services are provided in a confidential and diversity-affirming environment to help students address a variety of mental health, situational, and developmental concerns. Our office is located in the Baugher Student Center, Suite 216. Appointments can be made in person or by calling 717-361-1405. Urgent walk-in services are also available. To access our after-hours crisis services, please call the 24/7 Campus Security number of 717-361-1111. For more information, please visit www.etown.edu/offices/counseling.