Conceptual architectural design skills including perspective drawing and model making. Basic design principles of architecture, landscape architecture, and urban design. A focus on Environmental and Sustainable Design, from the “Organic Design” of Frank Lloyd Wright to present-day LEED standards (Leadership in Energy and Environmental Design). An introduction to natural day-lighting and passive solar heating & cooling. Case studies from Europe, Asia, and the United States. Discussion of comprehensive plans for colleges. A semester research paper and final architectural design are required. Periodic critiques (“Crits”) for learning to present creative works. There is a $200 fee for drawing and model-making tools and materials.

**PROFESSOR**

Joseph T Wunderlich PhD. BS in Architectural Engineering (plus 2 years of Urban Design), M.Engr in Engineering Science, PhD in Electrical & Computer Engineering

CV Associate Professor of Engineering & Computer Science; Program Coordinator for Computer Engineering and Architecture Programs

Offices: E284E or E273 Office Phone: 717-361-1295 Cell: 717-368-9715 Email: wunderjt@etown.edu Website: http://users.etown.edu/w/wunderjt

MEETING TIMES

- **MONDAYS 11:00-12:20 in E273**
- **WEDNESDAYS 11:00-12:00** (to 12:20 on some days) in E273 or at announced location
- **FRIDAYS 11:00-12:00** (to 12:20 on some days) in E273

**TOOLS & MATERIALS** (distributed in class -- bulk items will be divided up)

1. Alvin GBM1824 GBM Series 18" x24 inches Green/Black Professional Self-Healing Cutting Mat (ALSO USE TO MOUNT DRAWING PAPER)
2. Masking Tape 0.94-Inch x 60 Yards (TO MOUNT DRAWING PAPER)
3. Stanley PowerLock Tape Measure (25-Foot)
4. Breman Precision Stainless Steel Metal Rulers with Inch and Metric Graduations Flexible with Non-Slip Cork Base (18")
5. FEQM Architectural Scale Ruler (Imperial) and Engineer Scale Ruler Set - Two 12 Inch Aluminum Triangular Scale Rulers with Protective Sleeves
6. PRO ART 8-Inch 45/90-Degree Triangle, Fluorescent
7. PRO ART 12-Inch 30/60-Degree Triangle, Clear
8. Mr.Pen 15 Pcs Compass Set with Swing Arm Protractor (6"), Geometry Set, Divider, Set Squares, Ruler, Protractor, Compass, and Eraser
9. Alvin Stainless Steel Erasing Shield (3298)
10. Mr. Pen Architectural Templates, House Plan, Interior Design, Furniture, Geometry ¼"=1'-0" scale
11. Japanese Origami Paper, 16 Traditional Patterns by Sterling Publishing Co
12. 100 Pc Wood Building Block Set
13. Midwest Products Project Woods Balsa & Basswood Strip Economy Bag
14. 8.5x11 Inch 50 Point Kraft Heavy Duty Chipboard Sheets
15. Midwest Products Balsa Wood Sheets 36"-1/8"X3"
16. Midwest Products Balsawood Scrap Bag
17. Fixson Retractable Razor Blades Knife with snap-off blades and slide lock
TEXTBOOKS  (Required Purchases from bookstore)

ISBN-10: 9781118745083

ISBN-10: 022643575X

STUDENT LEARNING OUTCOMES

- Learn how to create architectural drawings in perspective, plan, elevation, and section
- Learn how to create architectural study-models, and finished presentation models
- Understand concepts of Architecture, Environmental Design, Urban Planning, and the Arts
- Learn Frank Lloyd Wright’s “Organic Design”, and some present-day LEED standards (Leadership in Energy and Environmental Design)
- Learn to find architectural inspiration from case-studies and various cultures
- Write a research and design paper, including locating information and evaluating its accuracy, quality, timeliness, and usefulness
- Learn Elizabethtown College’s mission of peacemaking, human rights, social justice, and service
- Appreciate varied cultural and multi-disciplinary perspectives
Lectures (reorganized since printed syllabus given in the week before classes)
- “Mansion Inspirations” and “Bones of Barns and Farmhouses”
- Select parts of ART370 “Architecture Theory” Lecture series, Parts 1, 2, 3, 4, 5, 6, 7
- Japanese People, Urban Design, and Architecture
- Perspective Drawing
- “The life and work of Frank Lloyd Wright” Lecture series, Parts 1, 2, 3, 4, 5, 6, 7, 8
- 2019 Frank Lloyd Wright 31 sites visited in Chicago
- Italian People, Urban Design, and Architecture
- Parts of EGR353 Green Architectural Engineering Lectures on: “Natural and Man-made Lighting” “Passive Heating” “Passive Cooling”
- Elizabethtown College Master Plan
- Portfolio Design

Models
- Best 2018 FYS student models: by Kelli Garriott by Colton Shriver
- Helpful YouTube videos: “Tips & Tricks” “Material Selection” “Tools” “Model Bases & Scale”

Grading
10% Attendance and participation in all lectures, assigned-reading discussions, activities, and library quizzes
25% In-class and homework assignments, keep in Portfolio binder (periodically graded, then graded as a collection on Friday Nov 22)
45% Final Semester Design: Paper, Drawings, Models, and Presentation Due Friday Nov 22
20% Final Exam (Comprehensive) Monday Dec 9 at 2:30PM

Inspirations
Although many Architects are hesitant to speak of their inspirations because they wish to have their creativity seen as entirely original, we will always give proper credit to who and what has inspired our designs.

Semester Design
A Custom Home inspired by at least one Frank Lloyd Wright Design
- Preliminary presentation and paper-draft peer-reviewed with peer-mentor (as part of participation & attendance)
- Library research session and related library quizzes are part of course participation & attendance
- Presentation must be a maximum of ten minutes, and PowerPoint slides (printed six per page) must be included in Portfolio binder
- Paper must include much content from lectures, clearly identify your inspirations, and must be included in Portfolio binder
  - Paper must be single-spaced, 10-point font, a minimum of 2,500 words, and include:
    - Images of original creative work of your own (models, drawings with at least one in perspective, etc)
    - A bibliography using MLA citation formatting
  - Best 2018 Paper: by Nicole Greiner
  - Best 2013 Paper (different FYS topics): by Sammi Eisdorfer
  - Paper graded by professor, then possibly by a committee for institutional quality control using the following assessment rubric:

<table>
<thead>
<tr>
<th>High Proficiency - 4</th>
<th>Proficiency - 3</th>
<th>Some Proficiency - 2</th>
<th>Limited/No Proficiency - 1</th>
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</thead>
<tbody>
<tr>
<td>Development of thesis is seamless, logical, and at an appropriate depth. Uses ample, relevant, documentable evidence and persuasive support;</td>
<td>Development of thesis is logical and at a reasonable level of depth, though could be deeper; perhaps a few gaps between ideas. Examples and supporting evidence are appropriate and informative with minimal use of unsubstantiated generalizations; additional examples would be useful.</td>
<td>Development of thesis is somewhat logical, though there are gaps in connecting various ideas of the paper; depth is not exceptional. Some generalizations; Evidence and support for assertions is merely adequate and may falter in places.</td>
<td>Development of thesis is illogical, difficult to follow, with very little depth to what is written. Relies predominantly on sweeping generalizations, narration, description, or summary; Evidence and support for assertions is weak or lacking.</td>
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<tr>
<td>Well-organized logically both as a whole and within individual paragraphs. Provides effective transitions between ideas/topics. Includes an introduction that sets up the content of the paper the subject and a conclusion that ties together the themes of analysis.</td>
<td>Organized logically but sequence of ideas as a whole and/or within individual paragraphs could be improved. Provides transitions between most ideas/topics. Includes an introduction and conclusion but could more effectively introduce the subject and tie together the threads of analysis.</td>
<td>Provides some logical organization but also has abrupt or illogical shifts in the paper as a whole and/or within individual paragraphs. Lacks transitions in many cases. Provides an introduction and conclusion but one or the other is ineffective.</td>
<td>Unclear and/or illogical organization both as a whole and within individual paragraphs. Provides very few transitions. Missing an introduction and/or conclusion.</td>
</tr>
<tr>
<td>Makes highly effective utilization of multiple, academically reliable sources including primary, secondary sources and/or peer-reviewed sources. Selects and integrates sources in ways that are appropriate to the genre of writing.</td>
<td>Makes effective utilization of multiple, academically reliable sources including primary, secondary sources and/or peer-reviewed sources. Sources are integrated for the most part, but could use some improvement.</td>
<td>Utilizes multiple sources, but not always effectively. One or two sources are questionable. Sources lack integration.</td>
<td>Sources are used but not effectively. More than two sources are of questionable validity. Sources lack integration.</td>
</tr>
<tr>
<td>Is free of mistakes in grammar and spelling. Style is smooth and readable. Incorporates varied sentence structure and precise word choice.</td>
<td>Makes a few mistakes in grammar and spelling. Style is mostly smooth and readable. Incorporates varied sentence structure and generally effective word choice</td>
<td>Makes a few mistakes in grammar and spelling, but more correct than not. Style is readable but not smooth. Sometimes lacks varied sentence structure. Word-choice sometimes ineffective.</td>
<td>Many distracting mistakes in grammar and spelling. Style is difficult to read. Lacks varied sentence structure and often uses words ineffectively or inappropriately.</td>
</tr>
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Portfolio
- Due Friday, November Nov 22
- Use the 1” white three-ring binder, 1” label, and color binder-dividers purchased for you
- In 1” white three-ring binder, with your name on the 1” label placed on the edge of binder, include, in separated labeled binder-divider sections:
  1. All your semester assignments
  2. Your semester project paper
  3. Your semester project presentation (six slides per page)
1. SAFETY
You will be using an extremely sharp tool to cut your model materials, so you must always do the following:
- Never have fingers anywhere near the trajectory of your intended cut; Assume you will slip and the blade should not hit any part of your body
- Make an initial slow soft scoring cut, followed by one or more slow even-pressure cuts
- If you cut yourself, wash the cut thoroughly with soap and put a band aid on it, also use Neosporin if you have it
- If the cut is deep or does not close evenly or easily, or is bleeding a lot, call CAMPUS SECURITY AT 717-361-1111 for instructions on what to do

2. TOOLS TO BRING TO CLASS
Tools and materials will be distributed throughout the semester. Always bring to class your Architectural Scale, pencil, pencil sharpener, eraser, and two triangles

3. NO CELL PHONE OR LAPTOP USE IN CLASS
This is a low-tech hands-on course, by design, and per standard Architecture school introductory studio learning. 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

- If you wish for me to teach you the use of high-tech in Architecture, declare an Architectural Studies Minor and take the following courses: http://users.etown.edu/w/wunderjt/home_Lab_Manuals_Architecture.html

4. 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.

5. SCHOOL CLOSURE / CLASS CANCELATION
Additional readings and/or a special project will be assigned to cover any class cancelations

6. 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.

7. 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 Elizabethtown College Catalog, “Standards of Academic Integrity” (http://catalog.etown.edu/content.php?catoiid=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)

8. 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. 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.