Elizabethtown College
Syllabus
EGR 280 Engineering Research
Fall, 2017

A student may participate in ongoing research or design project for academic credit.
Can be taken Pass/No Pass. Register by Instructor. This course may be repeated for credit.

PROFESSOR
Joseph T Wunderlich PhD
Program Coordinator for Computer Engineering Major, and Architectural Studies Minor
Director of the Robotics and Machine Intelligence Lab (also named The Design & Technology-Transfer Studio)
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Prerequisites
- No explicate course prerequisites, however I may insist certain courses be completed before this course can be undertaken
- Demonstrated maturity and ambition required to work semi-independently

Course Credit
- 0 to 4 (typically 1 or 2 max)

Learning Outcomes
This course is intended for four types of students:

1. **Architectural Studies Minors** who choose to pursue four credits (in a combination of credits spread over one, two, three, or four semesters) in fulfillment of four of the credits needed for the Minor:

    - ART 105 - CE Drawing I
    - ART 280 - NCH World Architecture

    - ART 120 - CE Sculpture I **or**
    - ART 210 - Drawing II

    - EGR 343 - Green Architectural Engineering

    - ART 470-474 - Internship in Fine Arts (emphasis in architecture) **or**
    - EGR 470-474 - Internship in Engineering (emphasis in architecture)
        OR
    - ART 480-489 - Independent Study in Fine Arts (emphasis in architecture) **or**
    - EGR 480-489 - Independent Study in Engineering (emphasis in architecture)
        OR
    - ART 370-378 - Special Topics in Fine Arts (emphasis in architecture) **or**
    - EGR 370-378 - Special Topics in Engineering (emphasis in architecture)
        OR
    - **EGR 280 - Engineering Research/Project** (emphasis in architecture) **or**
    - **ART 371 – Intermediate Architecture Design Studio (pending)**
        OR
    - EGR 276 - Sustainable Resource Engineering and Design **and**
    - EGR 396 - Spring Seminar

    - EGR 499A - Architectural Design Studio I (ART 499A) **or**
    - ART 499A - Architectural Design Studio I (EGR 499A)
        AND
    - EGR 499B - Architectural Design Studio II (ART 499B) **or**
    - ART 499B - Architectural Design Studio II (EGR 499B)

2. **Sustainable Design (or Environmental) Engineering Majors.** Sustainable Design Majors who began attending Elizabethtown before Fall 2016 who choose to pursue four credits (in a combination of credits spread over one, two, three or four semesters) of Engineering Research in a sustainable topic in fulfillment of the four credits they need to choose from shown below:

3. **Computer Engineering or Computer Science Majors** who have already, or are in the process of, exhausting all in-class research opportunities offered by Dr. Wunderlich courses that are required for their Major.

4. Students in **other majors** who wish to pursue inter-disciplinary research with Dr. Wunderlich.

Required Readings
- Relevant readings may be assigned

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Grading:
- Initial research and consultations = 20% *(Written reports may be required)*
- Progress reports = 10% *(Written reports may be required)*
- Final accomplishments = 80% *(A written report, drawings, a poster, a model, an animation, and/or a presentation may be required)*

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)

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.

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."* -- All work that it is not your own must be clearly cited. Engineers and scientists must conform to the highest ethical standards; if you have any question about what is permissible and not permissible, please ask me.