Engineering Seminar II  
GEN101, Spring 2017, 1 Credit  

Class meetings: Wednesdays 2:00 PM to 3:50 PM in Bergstrom 103  
Final Exam Period: Wednesday May 10th 11:00 AM  
Prerequisite Courses: GEN100

Instructor: Scott Greene, PE, PhD, Lecturer in Engineering  
Email: sgreene@carrollu.edu  
Cell Phone: (608) 358-0912
(Text preferred, but please state your name in your message!)  
Office: Room 204 in 206 Charles  
Office Hours: By appointment and TBD

Description: New engineering students are given opportunities to explore the engineering programs through interdisciplinary projects. Emphasis will be placed on written and oral communication skills, data analysis, computer application skills and group work.

Text:  
*How We Got to Now: Six Innovations That Made the Modern World* by Steven Johnson  
Copyright Year: 2014  
Publisher: Riverhead Books

The following texts from last semester will be useful:  
*An Engineer’s Guide to Solving Problems* by Bob Schmidt  
Copyright Year: 2014  
Publisher: Kokomo Press

*To Forgive Design: Understanding Failure* by Petroski  
Available at Carroll University Bookstore  
Copyright Year: 2012  
Publisher: Harvard University Press

In addition to the selected text, readings and viewings from the Carroll library and online resources are required and will be posted in the LMS portal for this class.

The instructor maintains a private library of Engineering books which are available for student use during the semester. Students should contact the instructor to borrow a text or they will have one forced upon them.

Students are encouraged to use, find, and share resources legally available from the Carroll University library and internet, such as MITOpenCourseWare, that can help them in their courses.

Philosophy:  
Please read the course guidelines on the LMS which outline the instructor’s philosophy.
Topics:
Engineering, creativity, and innovation. The history of the engineer in society. Students will participate in group activities based on the required readings and viewings.

Course Objectives
Students develop perspectives on the history and evolution of engineering and develop skills for technical writing and communication.

Student outcomes within the context of a major in Applied Physics and Engineering:
Students develop

- an understanding of professional and ethical responsibility (ABET 3 f)
- an ability to communicate effectively (ABET 3 g)
- an understanding of the impact of engineering solutions in a global, economic, environmental, and societal context (ABET 3 h)
- a knowledge of contemporary issues (ABET 3 j)

Note that the reference to the ABET Student Outcomes Criterion 3 is for the benefit of students in the 3+2 program earning a second degree in Engineering from a ABET accredited institution such as the University of Wisconsin at Madison, Milwaukee, or Platteville

Student Learning Outcomes:
At conclusion of the course, the student must demonstrate the ability to:

i. Write a concise essay that contains the narrative of an event and explains a technical concept

ii. Pose a realistic ethical dilemma and reason through more than one plausible resolutions to the dilemma

iii. Write a concise summary of the results from a data analysis

Measures and Grades:
Most written assignments will be completed in-class but require preparation outside of class. Reading and viewing assignments must be completed prior to the class in which they are discussed. Students receive weekly feedback after the second week of class.

Numerical scoring of assignments is not used in this course. Students must attend and participate in all course meetings (or complete remedies for all excused absences and have no unexcused absences) to receive a grade of B or better. Grades of BC and C are reserved for students that attend all course meetings but either do not participate in each class or do not adequately complete remedies for excused absences. Grades of D and F are reserved for students with unexcused absences. Grades of A and AB are reserved for students that meet advanced criteria in assignments based on rubrics provided when the assignments are given.
Student Obligations:

- This course requires in-class participation. Attendance at every class meeting is expected. Students are accountable for all material covered at each class meeting including completion of the in-class assignments and coordination with their classmates. Students should inform the instructor prior to missing any class meetings and to propose a plan to remedy the impacts of their absence. If due to an emergency the student is not able to contact the instructor prior to class, the student should contact the instructor as soon as is reasonable. Typical remedies for missing class include completing the in-class assignments and preparing a summary or explanation of a portion of the class material missed. In general, remedies will require at least two hours of out-of-class work.

- Familiarize yourself with the Carroll University Academic Integrity Policy located in the student handbook. [https://my.carrollu.edu/ICS/Departments/Student_Affairs](https://my.carrollu.edu/ICS/Departments/Student_Affairs)

- Carroll University emphasizes that students have an obligation to conduct their academic work with honesty and integrity. All acts of academic misconduct are serious.
  - If you have any questions about appropriate citations and attributions, please ask the instructor.

- The instructor can impose a sanction of failure for any individual assignment or for the course if a student violates the Carroll University Academic Integrity Policy.

*The instructor and the University reserve the right to modify, amend or change the syllabus (course requirements, grading policy, etc.) as the curriculum and/or program require(s).*