Course Description

Course Description: Included in this course is an introduction to thermodynamics, fluid mechanics and heat transfer. Emphasis is on gaining an understanding of the physical concepts through the solving of numerical problems associated with simple thermal fluid processes and cycles. Both ideal gases and multiphase fluids will be considered as the working fluids.

Prerequisites: Undergraduate engineering, physics or chemistry degree. Restriction: Permission of ENGR-Office of Advanced Engineering Education. Credit only granted for: ENPM672 or ENPM808J. Formerly: ENPM808J.

Grading Procedures: Your final grade will consist of the following components:

- Individual Homework: 40%
- 3 Exams (20% each): 60%
- Total: 100%

Homework will be assigned every week and due by midnight on Sunday before the next week.

Three online exams will be given after each main topic. Thermodynamics, Fluid Mechanics and Heat Transfer. They each will consist of open book and closed book sections and may be timed.

Software

Canvas will be used extensively, almost exclusively for: Communication, Course Material and Lectures, Inputting of grades, Homework Assignment and Submission and Exams. It is your responsibility to make sure you have access. Please check frequently. Email or messaging through canvas is the best way to contact the instructor. To schedule a meeting or teleconference, please use email to arrange.

Engineering Equation Solver Program (EES) for Windows: The program is freely offered to you by UMD but it is automatically disabled every September 1st, so you have to be registered for the ENPM program to download it each year. It is also available on UMD’s Virtual Computer Lab and in some on-campus computer labs.

WileyPLUS: This software may be used during the Thermodynamics and Fluids Sections of the Course.

Code of Academic Integrity

"The University of Maryland, College Park has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards for academic integrity at Maryland
for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For more information on the Code of Academic Integrity or the Student Honor Council, please visit: http://www.studenthonorcouncil.umd.edu/whatis.html."

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**Required/Recommended Textbooks**


The publisher’s website contains many useful resources as well as the CD included with the text.


Reference Textbooks: Much of the material in the textbook has been adapted from the following textbooks that may have been used in your undergraduate courses. Any of the editions or versions may be helpful.

