ME 475/675 Introduction to Combustion
Fall 2015
MWR 9 to 9:50 AM
SEM 261

Professor: Dr. Miles Greiner
Office: PE 213; (775) 784-4873; greiner@unr.edu
Office Hours: Tuesdays and Thursday, 1-2 PM, or by appointment

Course Website: http://wolfweb.unr.edu/homepage/greiner/teaching/MECH.475.675.Combustion/index.htm

Teaching Assistants: Hasibul Alam hasibul.alam.bd@gmail.com


Prerequisites: ENGR 360 Fluid Mechanics; ME 311 Thermodynamics I; ME 314 Heat Transfer or CHE 374 Transport Theory

Overview and Objectives: The study of combustion is relevant to heating, electric power generation, transportation, manufacturing, reducing atmospheric pollution, and safety. This course uses thermodynamics, heat/mass transfer, fluid dynamics and chemical kinetics to understand the combustion process. Students will derived and apply fundamental equations and concepts to describe combustion. They will apply these concepts to simplified systems for mainly laminar flows. Topics covered include premix and diffusion flames, and particle combustion.

Grading:

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<tr>
<th>Assignment</th>
<th>Percentage</th>
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<tr>
<td>Assignments (Homework and Computer Projects)</td>
<td>22%</td>
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<td>Midterm 1 (September 28, 2015, 1.5 hours)</td>
<td>25%</td>
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<td>Midterm 2 (November 13, 2015, 1.5 hours)</td>
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<tr>
<td>Final Exam (December 11, 2015, 2:45-4:45 PM, 2 hour)</td>
<td>25%</td>
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<td>Project (i.e. Construct Backpack Stove, Design Experiment, analyze technical paper)</td>
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Extra Credit: (Turn in clearly re-worked class examples by the next class period, checked)  3%

Disabilities: UNR welcomes students with documented disabilities and encourages them to contact the Disability Resource Center (http://www.unr.edu/drc) to discuss appropriate accommodations

Final Date to Drop Classes and Receive a “W”: October 28, 2015.

Courtesies: Please arrive to lecture on time. If you are late, please sit by the door (do not walk in front to find a seat or turn in an assignment). If you are on time please do not sit by the door. Please participate in lecture (ask questions, minimize phone use) and be careful not to distract other students or the instructor.

Academic Dishonesty: Academic dishonesty may be grounds for receiving an F in this course.

No Make-up Exams Will Be Given unless arrangements are made with the instructor before the exam period. No late homework will be accepted. Homework must be turned in before lecture starts. Some one-line answers are posted on the website. Full solutions will be posted after HW is due.

Recording: Surreptitious or covert video-taping of class or unauthorized audio recording of class is prohibited by law and by Board of Regents policy. This class may be videotaped or audio recorded only with the written permission of the instructor. In order to accommodate students with disabilities, some students may have been given permission to record class lectures and discussions. Therefore, students should understand that their comments during class may be recorded.