ME 4131 Thermal Environmental Engineering Laboratory Syllabus  
Spring 2009

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Required text:  
ME 4131 Thermal Environmental Engineering Lab Manual.

Reference texts:  
• McQuiston and Parker. Heating Ventilating and Air Conditioning, 6th ed., 2005  
• Duffie and Beckman. Solar Engineering of Thermal Processes, 1991  
• ASHRAE Handbook series

Grading distribution:  
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>2 formal reports</td>
<td>30 % (10 % for draft, 5 % for revised final version)</td>
</tr>
<tr>
<td>5 informal reports</td>
<td>45 % (9 % each)</td>
</tr>
<tr>
<td>5 data sheets, 1 test</td>
<td>15 % (2.5 % each)</td>
</tr>
<tr>
<td>lab participation</td>
<td>5 %</td>
</tr>
<tr>
<td>pre-lab quizzes</td>
<td>5 %</td>
</tr>
<tr>
<td>Total</td>
<td>100 %</td>
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Due dates:  
• Informal reports and data sheets are due one week after the completion of the lab,  
at the beginning of the next lab meeting.  
• For formal reports, the first draft is due two weeks after the completion of the lab.  
The report will be returned with comments. The final draft of the formal report is due  
one week after the first draft is returned. No late final versions of the formal reports  
will be accepted.  
• The following table shows the due dates and penalties for all reports:

<table>
<thead>
<tr>
<th>Lab Day</th>
<th>Due Date</th>
<th>15% Penalty if received by:</th>
<th>No Credit:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday</td>
<td>following Wednesday</td>
<td>Monday after due date - 4 pm</td>
<td>after 4 pm Monday</td>
</tr>
<tr>
<td>Thursday</td>
<td>Following Thursday</td>
<td>Tuesday after due date - 4 pm</td>
<td>After 4 pm Tuesday</td>
</tr>
<tr>
<td>Friday</td>
<td>following Friday</td>
<td>Wednesday after due date - 4 pm</td>
<td>after 4 pm Wednesday</td>
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A portion of the attendance/participation grade is determined by evaluations of each student,  
conducted by their lab group members. This will happen at the end of the semester.

Each student is responsible for keeping a lab notebook to document necessary lab work.  
Copies of relevant lab notebook pages are required to be turned in with each lab report.

Each student is responsible for his/her own work, i.e. any cases of plagiarism or copying of other  
reports will be treated as per the Student Conduct Code.
Working Together and Plagiarism
(from the AEM 4602 course website, used with permission from Tom Shield)

plagiarize
vt. [<L. plagiarus, kidnapper] to take (ideas, writings, etc.) from (another) and offer them as one's own. (source: Webster's New World Dictionary of the American Language, D. B. Guralnic, ed., William Collins Publishers (New York) 1979.)

Plagiarism is grounds for receiving an F in this class. You are assigned to do your laboratory experiment with a team. However, the contents of your report must be your original work. The following points may help clarify the situation:

- All of the text of your report must be your original writing with the exception of any direct quotes from sources that you clearly reference.

- All calculations must be performed by you. You may discuss data reduction with your lab partners and you may start from a common spreadsheet of raw data when the data is collected as a group. However, all analysis and comparisons to theory must be done by you individually.

- All figures presented in your report must have been prepared by you. Any exceptions to this must be clearly labeled as the work of others. Note that you are not allowed (by copyright laws) to copy the artwork (drawings, figures, photos, or plots) of others without permission. You may use a figure prepared by one of your lab partners, such as a drawing of the experimental apparatus, if you clearly cite the author.