PHYSICS 350 - Classical Mechanics I

Syllabus

Fall 2007 Semester

Course ID  Time  Days  Room
PHYS 350-001  12:45pm - 2:05pm  TR  TCCW 251

Instructor:
Dr. Alexander Barzilov
Assistant Professor
Department of Physics and Astronomy
Western Kentucky University
Bowling Green, KY 42101

Office: Thompson Complex Central Wing, #214
Phone: 270-745-5467    Fax: 270-745-2014
Electronic Mail: alexander.barzilov@wku.edu
Home Page: http://physics.wku.edu/~barzilov/
Office Hours: TR 2:05pm - 3:05pm
+ many more by chance or by appointment

Course Description

A study of classical mechanics including equations of motion, coordinate systems, the simple harmonic oscillator, damping forces, vector algebra, momentum and energy theorems.

Course Objectives

The course objectives are to develop ability to understand concepts of classical mechanics, to increase the capacity for critical and logical thinking, and to apply methods used in the study in our lives.

Course Topics

The course covers the following topics:

- Fundamental concepts: vectors
- Rectilinear motion of a particle
- Oscillators
- General 3-D motion of a particle
- Noninertial reference systems
- Gravitational and central forces

Textbook
Co-requisites and Pre-requisites

Students enrolled in Physics 350 must have already satisfactorily completed Physics 265 or Physics 270. In addition, students must be also enrolled in or completed Math 331 and Math 327.

Homework and Attendance Policy

Homework must be handed in by the announced deadline. Late homework will not be accepted except in special circumstances. There may be a penalty for late homework dependent on the seriousness of such circumstances. Students are strongly encouraged to attend all classes.

Grading Policy

Your grade for Physics 350 will be based on your performance in the class and on your exam results using the usual distribution as shown in Table 1 on the left. The weight coefficients are the following: quizzes Q - 10%; homework H - 25%; exams E (3) - 45%, final exam F - 20%. The formula for the overall grade is \( G = 0.1Q + 0.45E + 0.25H + 0.20F \). You can re-take one of three exams /E/ without any risk: if the grade on the retake is higher than your grade for the exam; if it is not higher the result of the retake will be ignored.

<table>
<thead>
<tr>
<th>Average Score</th>
<th>Grade</th>
</tr>
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<tbody>
<tr>
<td>90 - 100</td>
<td>A</td>
</tr>
<tr>
<td>80 - 89</td>
<td>B</td>
</tr>
<tr>
<td>70 - 79</td>
<td>C</td>
</tr>
<tr>
<td>60 - 69</td>
<td>D</td>
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<tr>
<td>59 and below</td>
<td>F</td>
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</tbody>
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Final examination

The final exam for the course will be comprehensive. The exam will be given according to the university mandated schedule which is reproduced below for your class.

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Normal Day and Time</th>
<th>Final Exam Day</th>
<th>Final Exam Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 350-001</td>
<td>TR @ 12:45pm-2:05pm</td>
<td>Friday, December 14, 2007</td>
<td>10:30am-12:30pm</td>
</tr>
</tbody>
</table>
Disability Accommodations

Students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Office for Student Disability Services, Room 101, Garrett Conference Center. The OFSDS telephone number is (270) 745-5004 V/TDD. Please DO NOT request accommodations directly from me without a letter of accommodation from the Office for Student Disability Services.