Physics 604  Fall 2016

GENERAL INFORMATION

Title: Methods of Mathematical Physics

Instructor: Dr. James F. Drake

Office: A. V. Williams Bldg. (3311)
Phone: 405-1471
e-mail: drake@umd.edu
Office Hours: by appointment or random access.
Web site: www.terpconnect.umd.edu/~drake/classes/physics604

Room: CSS 2428

Time: TuTh 9:30-10:45 AM

Grader: Hanho Lee
Office: 0104 Toll
Phone: 240-758-1231
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Course Description: The course is intended to provide
a strong mathematical background for solving equations
in physics. Topics to be covered are: (1) the theory
complex variables including analytic functions,
integral theorems and analytic continuation:
(2) methods for solving ordinary and partial differential
equations including Fourier and Laplace transforms,
integral representations, eigenfunction expansions,
Green’s functions and approximation methods. The
emphasis will be on techniques which are useful
to the practicing physicist.

6th Edition (2005),
Academic Press.
Supplementary Reading: Churchill, *Complex Variables and Applications*, McGraw-Hill
Mathews and Walker, *Mathematical Methods of Physics*, Benjamin
Lea, *Mathematics for Physicists*, Thomson

Homework: Assignments will be made on each Thursday and will be due the following Thursday. Late homework will be penalized 20% for each day late and will not be accepted beyond Friday after it is due.

Grading: There will be three exams: two midterms and a final. Grades will be assigned as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>100</td>
</tr>
<tr>
<td>1st midterm</td>
<td>100</td>
</tr>
<tr>
<td>2nd midterm</td>
<td>100</td>
</tr>
<tr>
<td>Final</td>
<td>200</td>
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The lowest score from the homework, either of the two midterms or half of the final will be dropped.