

BNAME

Kpvtwevqt< Ataur R. Chowdhury

Qhhkeg< REIC 118

Qhhkeg" J qwtu< MWF 3:30-5:00 PM, or feel free to drop in whenever I am in my office.

Eqpvcev< Phone (907) 474-6109
Fax (907) 474-6130
Email archowdhury@alaska.edu

Rtgtgswkukvgu< PHYS 341 or permission of instructor
Vgzvu< **Tgswktgf**< by Griffiths, 4st Edition, Cambridge.

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2.
3. Fundamentals of Electromagnetic Phenom___ \$

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ETP<"5494;."H23

Etgfkvu< 4 credits: 3 hr. of lecture, and 1hr. of tutorial per week.

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Class Attendance/Participation:

For a better understanding of the course material attendance and participation in classroom activities are very important. This particular course is generally regarded as one of the founding courses that deal with the fundamentals of classical physics, and it is highly expected that the students will commit themselves to attend the class regularly. There will be supplemental materials for this course and the students will be held responsible for all the materials that will be brought in from outside the text. The students will be expected to participate in class activities, and take part in meaningful discussion and ask questions to better comprehend the subject material.

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Tutorial Session:

One hour per week (T 1:15-2:15 PM, RECI 203) will be devoted to doing problems not included in the homework. Both the instructor and students will take part in solving a pre-selected set of problems during this session. Students may also bring in subjects materials for further discussion and clarification during this session. Attendance at this session is required. This session is designed to promote a better understanding of the subject and will not be a part of the grade

Homework:

On the average, 6-8 problems/exercises/questions will be assigned each week on Fridays. The homework will be due back at the beginning of class the following Friday. NO LATE HOMEWORK WILL BE ACCEPTED. NO EXCEPTIONS (barring emergencies and extreme situations). Group work is highly encouraged for solving problems, and for additional help with the homework the students are most welcome to consult the instructor during the office hour or any other time by prior appointment. Any homework you submit should reflect you own best effort. Copying of homework is absolutely not acceptable and will result in a grade of zero for the assignment.

Quizzes: There will be one quiz every week of the semester on Wednesdays, except the first week and week of midterm and final. These quizzes will be administered during the last 20 minutes of the class and are designed to test students understanding of the subject material covered during the preceding week. The quiz may include problems similar to the homework and may also include 'intuitive' question pertaining to the subject materials. Of all the quizzes only ten best will be considered for grading. Ocmg/wr"swk | |gu."kh" {qw" o kuu"encuu"hqt"xcnkf" tgcuppu."o c{"dg"cttcpigf"ykvj"cr rtqxcn"htq o "vjg"kpvtwevqt

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Examinations:

There will be two midterm examinations (February 28, Friday, 2:15-3:15 PM, and April 4, Friday, 2:15-3:15 PM) and a final comprehensive examination (May 2, Friday, 1:00-3:00 PM) for this course. Examinations will consist of, in most part, problems similar to those in the homework and those worked out in class. Midterm will cover the material covered in class and homework prior to the date of test, and the final will cover material covered in chapters 1-10, with more weight on material covered after the midterm."

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UAF does not have yet a central university policy for AI to be abided by. Depending how you use this, this could be very useful tool for learning. However, please make sure you are not using AI to cheat and copy things out of online sources of any kind. The university takes cheating seriously and it reserves the right to take lawful actions.

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Homework	25%
Prtipicipation	5%
Midterm I	15%
Midterm II	15%
Quiz	15%
<u>Final</u>	<u>25%</u>
Total	100%

The final grading for this course will be based on a curve. For a given score, your letter grade will not be lower than what it would be expected based on standard grading scale (90-100 = A, 80-90 = B, etc.). Allowed grades are limited to letter grades A,B,C,D,F,I,BN, and no plus-minus grades will be given for this course.

Incomplete Grade Policy: "The letter "I" (Incomplete) is a temporary grade used to indicate that the student has satisfactorily completed (C or better) the majority of work in a course but for personal reasons beyond the student's control, such as sickness, has not been able to complete the course during the regular semester. Negligence or indifference are not acceptable reasons for an "I" grade."

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: Students should keep up-to-date on the university's policies, practices, and mandates related to COVID-19 by regularly checking this website:

Further, students are expected to adhere to the university's policies, practices, and mandates and are subject to disciplinary actions if they do not comply.

: UAF embraces and grows a culture of respect, diversity, inclusion, and caring. Students at this university are protected against sexual harassment and discrimination

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Tentative Schedule

Lecture, Reading, and Exam

<u>Date</u>	<u>Topics</u>	<u>Reading Assignment</u>
Jan 13	syllabus, introduction	
15	review of vectors	1.1
17	differential calculus	1.2
20	CM"Ekxkn"Tkijvu"Fc{"*pq"encuu+	
22	integral calculus	1.3
24	curvilinear coordinates	1.4
27	Dirac delta function	1.5
29	vector fields	1.6
31	vector fields cont'd	1.6
Feb 3	electric field & Coulomb's law	2.1
5	Gauss's law & its applications	2.2
7	electric potentials	2.3
10	Poisson's & Laplace's equation	2.3
12	work & energy	2.4
14	conductors	2.5
17	potential and Laplace's equation	3.1
19	method of images	3.2
21	separation of variables	3.3
24	multiple expansion	3.4
26	overview of midterm I	
28	Okfvgt o "K	
Mar 3	dielectrics and polarization	4.1

