

64-220

Electromagnetic Fields and Photons

Fall 2017

Course web site at <https://blackboard.uwindsor.ca/>

Lectures:	M,W,F	11:30 am – 12:20 pm	Toldo HEC 200
Laboratory:	(Find your section on SIS)	2:30-5:20pm	Essex Hall 287

Prof's contact information:

Dr. Chitra Rangan

Dept. of Physics, 277-3 Essex Hall

Email: rangan@uwindsor.ca

Phone: 519-253-3000 x-2662 (please do not leave messages)

When & where to meet the prof?

I will be in my office (277-3 Essex Hall) every Monday 3-4pm, Tuesday 10:30 – 11:30am and by appointment. I chose these times because most students are available at one of these two times, and homework sets are due each Tuesday at 11:59pm. If these office hours don't work for you, feel free to email me and set up a meeting. I will also be available online (click on Online office hours on Blackboard) during these times so you can talk to me virtually.

It is very easy to reach me by email during working hours (8:30am – 4:30pm, M-F). You can send me a photo of your work/question, and I can reply back fairly quickly.

Pre-requisites: **64-141.** The course is designed as a follow-on to 64-141, and uses the mathematics of linear algebra, differential equations, and integral calculus. We will use many of the concepts introduced in 64-141 and explore them in 2D and 3D. The techniques you learn in this course will also lead you towards the modeling of electromagnetism using vector calculus.

Textbook: The textbook for this course is **Sears and Zemansky's University physics: with modern physics by Young and Freedman, 14/E**. An earlier edition will work just as well. It is the same textbook used in 64-140 and 64-141. If you've used Mastering Physics, the code is valid for 18 months, so you should have access to the online text.

There are several reference books on two-hour loan in the Leddy Library.

Calculator: The only allowed calculators during exams are: Texas Instruments TI-30X 11S, Casio FX-300MS PLUS, and Casio FX-991 MS PLUS. These are available in the bookstore, and cost about \$20. A student bringing any other calculator to an exam will not be allowed to use it. If you believe you have a similar calculator, check with me before Sep. 18th. I will update a list of allowed calculators on the Blackboard page.

GRADES:

Weekly homework (lowest mark dropped)	10%
Laboratory	20%
Midterm exams	40%
Final exam (T, Dec 12, 12pm)	30%

(Make-up final exams will be held on the Alternate Exam date Dec. 21st)
Grades will be rounded to the nearest whole number percent.

CLASS POLICIES

All **electronic communication devices** must be turned off and stowed during the entire duration of the lecture and lab hours. If you need to use an electronic device for medical or disability reasons, discuss this with me ASAP. Persons who violate this policy will be asked to leave the class. If you need to have your cell phone on for some reason (such as a pregnant wife or a sick family member), please let me know, sit near an exit, and keep the phone on vibrate.

Email: Please use the 'Email Instructor' tool from the Blackboard site. If this doesn't work, send an email to rangan@uwindsor.ca from your UWindsor account with a subject line beginning with 64-220. Messages without a subject line will be sent into my spam folder and it may be weeks before I find them. The official policy of the University of Windsor is that all University-related communications should be via the University of Windsor account.

I will generally try to respond to email at the earliest opportunity, during working hours (8:30 – 4:30, M-F). If several students email about a similar topic, an announcement or resource may be posted to the site, and students notified to avoid multiple individual responses.

Missed exam policy: If a student misses a midterm exam, the weight of that exam will be added to the final. A student who misses a final exam due to medical reasons or a personal tragedy may be allowed to take a make-up exam if sufficient documentation is provided. The make-up final exam date is Thursday, December 21st. Medical documentation should be provided using the University's doctor's excuse form (see course site on Blackboard).

Disability Services: Participants with various documented disabilities attend University with success. Student Disability Services (SDS) provides a variety of services and supports to students with documented disabilities (including: learning disabilities, attention deficit/hyperactivity disorder, acquired brain injuries, vision, hearing and mobility impairments, chronic medical conditions and psychiatric issues), who have registered with SDS.

If you have, or think you may have a disability, you may wish to visit SDS to learn how best to meet your academic goals. The SDS office is located in Room 117, Dillon Hall, contact number (519) 253-3000 ext. 3288 or online at www.uwindsor.ca/disability.

Academic honesty: Students are expected to uphold the standards of Academic Integrity as listed in the Student Code of Conduct. In particular, policies regarding plagiarism will be strictly implemented <http://www.uwindsor.ca/secretariat/49/senate-bylaws>. The Student Code of Conduct defines Plagiarism as "the act of copying, reproducing or paraphrasing significant portions of one's own work, or someone else's published or unpublished material (from any source, including the internet), without proper acknowledgment, representing these as new or as one's own. Plagiarism applies to all intellectual endeavours: creation and presentation of music, drawings, designs, dance, photography and other artistic and technical works."

All work submitted for evaluation should be your own, and cannot have been submitted for a different course. You are not allowed to copy any material (homework, formula sheets, lab reports, etc) from anyone - your classmates, previous students, or from outside the university. If you find a problem has been worked out somewhere – say in another textbook or a website, you may reproduce the solution provided that the solution is correct (justify), and you provide the attribution.

Course evaluation (SET forms) will be administered out in the last two weeks of class. Periodic informal surveys will be conducted. If you have a suggestion for making the class more exciting/engaging/ useful to you, feel free to either talk to me or drop a note by email or slide a note under my door.