

PHYS252, UNIVERSITY PHYSICS II

**** PLEASE READ "COVID-19 RELATED INFORMATION"**

BASIC INFORMATION

Course prefix, catalog number, and title: PHYS 252, 5917/18645, University Physics II

Number of credits: 4 credit hours

Term and year: Spring 2021

Classes: Mon, Wen, Fri 9:00 – 9:50 AM (AGHILL CTR 112/Zoom), Mon 10:00 – 10:50 AM (AGHILL CTR 112/Zoom)

The primary method by which course-related information will be communicated is during class. Reminders, notification of any schedule or assignment changes will be communicated through NDSU email and posted on Blackboard announcements page. Your NDSU email address is the official route for information. I will use Zoom for online course delivery. Virtual participation (zoom) in this course requires both video and audio capabilities.

IT Help Desk for technology concerns

Contact Information for Help Desk: Email: ndsuhelpdesk@ndsuhelpdesk.com

Call: 701-231-8685 (option 1)

Instructor's name: Prof. Yongki Choi

Office location: South Engineering 220A or Zoom office

Office hours: WF 10:00 – 11:00 AM and by appointment

Phone Number: 701-231-8968

Email Address: yongki.choi@ndsuhelpdesk.com

You may meet with me virtually using the Zoom during office hours, or you may meet with me in person during office hours (please remember to wear a face covering).

Physics Teaching Assistants Office Hours: https://www.ndsu.edu/physics/students/current_students/ta_office_hours/

Student Success Program Tutoring Hours: <https://www.ndsu.edu/ace/>

BULLETIN DESCRIPTION

Electric charge, field, potential, and current; magnetic field; capacitance; resistance; inductance; RC, RL, LC and RLC circuits; waves; optics

Prerequisite: PHYS 251 or ME 222, Corequisite: MATH 166

COURSE OBJECTIVES

After completing this course, you should be able to:

- Explain concepts in electricity, magnetism, wave, and optics
- Demonstrate the ability to analyze and solve conceptual and practical problems
- Construct quantitative models and descriptive predictions of physical behavior

REQUIRED STUDENT RESOURCES

Text book: *Fundamentals of Physics*, 9th – 11th Edition, by Halliday, Resnick, Walker

Other required materials:

- Clicker, Turning Point App: <https://kb.ndsu.edu/page.php?id=101669>
- Scientific calculator

SYLLABI ON WEB PAGES

Syllabus, Announcements, and Notes will be posted on our Blackboard course homepage: <https://bb.ndsu.nodak.edu>

HOMWORK ASSIGNMENTS

Weekly homework will be posted on the web-based LON-CAPA homepage (http://www.ndsu.edu/physics/lon_capa). All homework assignments are due on the dates specified. **Late submission will not receive credit.** Follow the login instructions to access our course.

LON-CAPA instruction: Your username will be your **firstname.lastname** in your NDSU email. For example, if your NDSU email is *albert.einstein@ndsu.edu*, then your username is **albert.einstein**. You will establish a password by selecting the "Forgot password?" when you first log-in to the system. For help using LON-CAPA, please contact Physics staff, Paul Omernik (paul.omernik@ndsu.edu, South Engineering 110).

COURSE SCHEDULE/OUTLINE/CALENDAR OF EVENTS

Week	Topic	Reading /Assignment
1	Coulomb's Law	Chapter 21
2	Electric Field	Chapter 22
3	Gauss' Law	Chapter 23
4	Electric Potential	Chapter 24
5	Capacitance	Chapter 25
6	Current and Resistance	Chapter 26
7	Circuits	Chapter 27
8	Magnetic Fields	Chapter 28
9	Magnetic Fields Due to Currents	Chapter 29
10	Spring Break	Mar 15-19
11	Induction and Inductance	Chapter 30
12	Electromagnetic Oscillations and Alternating Current	Chapter 31
13	Maxwell's Equations; Magnetism of Matter	Chapter 32
14	Electromagnetic Waves	Chapter 33
15	Images	Chapter 34
16	Interference	Chapter 35
17	Diffraction	Chapter 36
	Exam 1-5 (covering 2-4 chapters)	

* HOLIDAY – NO CLASS: JAN 18 (MLK DAY), FEB 15 (PRESIDENTS' DAY), SPRING BREAK (MAR 15-19), SPRING RECESS (APR 2-5)

EVALUATION PROCEDURES AND GRADING CRITERIA

Final letter grades for the course will be computed using the following weights:

- Homework Assignment 200 points (correct responses to 70% of the homework will earn max. 200 pts)
- Five Exams 400 points (your best 4 out 5 exam scores)
- Total Points 600 points
- Extra credit: Quiz/Clicker questions (35 points), Midterm survey (15 points)

NO MAKE-UP EXAMS ARE ALLOWED

Grades: A: > 90 %, B: 80 to < 90%, C: 70 to < 80 %, D: 60 to < 70%, F: < 60 %

SPECIAL NEEDS

Any students with disabilities or other special needs, who need special accommodations in this course, are invited to share these concerns or requests with the instructor and contact the [Disability Services Office \(www.ndsu.edu/disabilityservices\)](http://www.ndsu.edu/disabilityservices) as soon as possible.

ACADEMIC HONESTY

The academic community is operated on the basis of honesty, integrity, and fair play. [NDSU Policy 335: Code of Academic Responsibility and Conduct](#) applies to cases in which cheating, plagiarism, or other academic misconduct have occurred in an instructional context. Students found guilty of academic misconduct are subject to penalties, up to and possibly including suspension and/or expulsion. Student academic misconduct records are maintained by the [Office of Registration and Records](#).

Informational resources about academic honesty for students and instructional staff members can be found at www.ndsu.edu/academichonesty.

EMAIL COMMUNICATION

Please follow following guidelines:

- Use your NDSU email, not your yahoo or gmail account
- Begin your email “Dr. Choi or Prof. Choi”, do not use “Hey” or “Hi there”
- Type **Phys252** and **the subject** of your email in the **subject line** (e.g. “**Phys252 missing homework**”)
- Sign your email with **your name and student ID number**

*The instructor reserves the right to adjust or modify this syllabus if it is deemed beneficial to student learning

COVID-19 RELATED INFORMATION

HEALTH AND SAFETY EXPECTATIONS

NDSU web resource for information on COVID-19: https://www.ndsu.edu/admission/fall_2020_prelim_plan

NDSU guidance on face coverings, physical distancing, and sanitation

- NDSU requires students to wear face coverings in classrooms. Wearing face coverings helps reduce the risk to others in case you are infected but do not have symptoms.
- **You must properly wear a face covering (covering both the mouth and nose) for the entirety of the class.**
- **If you fail to properly wear a face covering, you will not be admitted to the classroom. However, you may choose to participate in the class remotely.** The following will be used as needed: referral to Dean of Students Office or administrative removal from class. Students who cannot wear a face covering due to a medical condition or disability may seek accommodation through Disability Services (701-231-8463; <https://www.ndsu.edu/disabilityservices/>).
- Disinfecting supplies are provided for you to disinfect your learning space. You may also use your own disinfecting supplies.
- Students should observe social distancing guidelines whenever possible. Students should avoid congregating around instructional space entrances before or after class. Students should exit the instructional space immediately after the end of class to ensure social distancing and allow for the persons attending the next scheduled class to enter the classroom.
- In accordance with NDSU Policy 601, failure to comply with instructions, including this syllabus, may be handled according to the Code of Student Conduct resolution process and may result in disciplinary sanction.
- No food and drink are allowed in the class.

ATTENDANCE EXPECTATIONS

According to [NDSU Policy 333 \(www.ndsu.edu/fileadmin/policy/333.pdf\)](http://www.ndsu.edu/fileadmin/policy/333.pdf), attendance in classes is expected. Veterans and student service members with special circumstances or who are activated are encouraged to notify the instructor as soon as possible and are encouraged to provide Activation Orders.

- Students are expected to attend every class and remain in class for the duration of the session when it is safe to do so in accordance with NDSU guidance regarding COVID19.
- In this course students should participate in the course mostly face-to-face. When needed, students are also able to participate virtually in synchronous or asynchronous discussions and activities and submit assignments virtually.
- While the late participation policy for this course is outlined below, please note that I will be flexible regarding deadlines for students who are experiencing illness or other challenges related to COVID-19. Please contact me as early as possible if you think you may not be able to complete an assignment or participate in the course due to illness.
- This semester due to COVID-19, I do not have an attendance policy as I normally would. Do not come to class if you are sick. You can view the lectures remotely and ask any questions you have on Backboard Ultra (or Zoom).

STEPS TO TAKE REGARDING STUDENT ILLNESS

- If you are unable to attend class at the regularly scheduled time due to illness, contact the instructor for alternate arrangements, including recordings of class sessions and assignments as well as accommodations and extensions as needed.
- Do not come to class if you are sick. Please protect your health and the health of others by staying home and participate in class remotely. For information on COVID-19, symptoms, testing, and steps to stay healthy see https://www.ndsu.edu/studenthealthservice/covid_19/.
- Do not come to class if you have been exposed to individuals who tested positive for COVID-19 and/or you have been notified to self-quarantine due to exposure.
- If you are absent from class as a result of a COVID-19 diagnosis or quarantine, the decision for approval of all absences and missed work is determined by the course instructor. As instructor, I will do the following to help you make progress in the course:
 - You will be able to participate in class remotely.
 - You will be able to submit assignments and take exams remotely.
 - Other remote learning options will be determined on a case-by-case basis.

COPYRIGHT OF COURSE MATERIALS

According to [NDSU Policy 190 \(Intellectual property\)](#):

- In this course recording the lectures is prohibited with your own personal devices (without prior express approval from the instructor).
- In this course recording the lectures for anything other than personal use is prohibited.

ASSIGNMENT SUBMISSION

- In this course Blackboard will be used for assignment submission (and grading) for all students (for both face-to-face and remote participants).
- If you are sick, do not come to class or campus to turn in work. Instead notify the course instructors as soon as practical, so that accommodations can be made.

HYFLEX OPTIONS

According to NDSU guidance of HyFlex: <https://kb.ndsu.edu/learn>

- If you are at high risk of contracting COVID-19 (and/or of infecting someone who is high risk), you have the option of attending class remotely. You may opt to do so at the beginning of the semester or as the need arises during the semester.
- To participate in HyFlex instruction remotely, you must have access to the requisite technology, including a laptop/computer with a functioning microphone, speakers (or headphones) and webcam, as well as reliable internet access.
- To opt for the remote learning experience in this course inform the course instructor via email as soon as possible.

ADDITIONAL RESOURCES FOR STUDENTS

As a member of the NDSU community, resources are available for you should you need help in dealing with adverse reactions to things happening in the world today. A variety of resources are listed below:

For students on campus and remotely (telehealth):

Counseling Services: 701-231-7671; <https://www.ndsu.edu/counseling/>

Disability Services: 701-231-8463; <https://www.ndsu.edu/disabilityservices/>

Student Health Service: 701-231-7331; <https://www.ndsu.edu/studenthealthservice/>

Dean of Students Office: 701-231-7701; <https://www.ndsu.edu/deanofstudents/>

In a crisis or emergency situation:

Call University Police: 701-231-8998

Call 9-1-1

Go to a Hospital Emergency Room

Go to Prairie St. Johns for a Needs Assessment: 701-476-7216 (510 4th St. S.)

Call the FirstLink Help Line: 1-800-273- TALK (8255) or 2-1-1

Call Rape and Abuse Crisis Center: 701-293-7273