Syllabus for Physics : Classical Physics B (Fall 2019) at Stony Brook University (Course # 80512)

Current revision (updated information is green) of Syllabus and Schedule Calendar: 8/31/2019 for Syllabus pages and 8/31/2019 for Schedule Calendar pages, August through December. From the Undergraduate Academic Bulletin

PHY : Classical Physics B {Prof. Koch has added **boldface emphasis** in the paragraph below this line.}

Second or third of a three-part sequence for physical-sciences or engineering majors. It focuses on the mechanics Fof rigid bodies, on fluids, waves, thermodynamics, and optics. Three lecture hours and one recitation hour per week. Associated Labs (PHY 133 or PHY 134) are offered separately. Not for credit in addition to PHY 132, or PHY 142. This course has been designated as a High Demand/Controlled Access (HD/CA) course. Students registering for HD/CA courses for the first time will have priority to do so.

Prerequisite: C or higher: PHY 126 or 131 or 141 Corequisite: MAT, 132, 142, 171 or AMS 161 or level 7 or higher on math placement exam

DEC: E SBC: SNW

3 credits + 1 credit for Recitation Section

Textbook: *Physics for Scientists and Engineers*, 4th edition, by D. Giancoli [for short, G4]:

Instructors

Lectures (Tuesday and Thursday: 8:30-9:50 am, Simons Center Auditorium 103

Peter.Koch@stonybrook.edu Office: D-144 (on the "bridge" between the D-level of the physics building and the 5th/6th floors of the math tower). Phone (631)632-8142 (no voice mail: always try email first).

[~1 week before classes start, enrollment in PHY is 160 and relatively stable. In early July it was ~100. Expect some changes.] **Recitation sections (starting 2nd week of classes)** (Faculty help room and/or office hours: to be determined)

R01 (Mon, 1:00-1:53, Harriman Hall 104)Office: C106 Phys(631)632-8116Linwood.Lee@stonybrook.edu [~35 enrolled]R02 (Mon, 4:00-4:53, Physics P130)Office: D144 Phys(631)632-8142Peter.Koch@stonybrook.edu [~27 enrolled]R03 (Tue, 1:00-1:53, Harriman Hall 116)Office: A113 Phys(631)632-8165Miriam.Forman@stonybrook.edu [~29 enrolled]R04 (Wed, 3:00-3:53, Melville LibryE4310)Office: A113 Phys(631)632-8165Miriam.Forman@stonybrook.edu [~23 enrolled]R05 (this section was cancelled so that its students could be put into other sections.)Miriam.Forman@stonybrook.edu [~23 enrolled]

R06 (Thu, 1:00-1:53, Physics P112)Office: C106 Phys (631)632-8116Linwood.Lee@stonybrook.edu [~18 enrolled]R07 (Thu, 4:00-4:53, Frey 2011)Office: Simons Cntr (631)632-2869Nathan.Haouzi@stonybrook.edu [~28 enrolled]

Course Learning Objectives

- 1. Students will demonstrate mastery of physics concepts related to rigid body mechanics, fluid mechanics, oscillations, and waves, thermodynamics, geometrical optics, and physics optics.
- 2. Students will be able to follow the derivation of formulas from fundamental principles using algebra and calculus.
- 3. Students will be able to think critically and apply appropriate physics concepts in analyzing qualitative problems in classical physics.
- 4. Students will demonstrate the ability to apply algebraic and calculus-based mathematical reasoning in solving quantitative physic problems.
- 5. Students will demonstrate proficiency in science process skills by designing and performing experiments to measure physical phenomena and minimize experimental measurement. (Only if they are enrolled in or have already taken and passed an associated, relevant physics lab course such as PHY 133 or PHY 134).
- 6. Students will understand how to estimate and propagate experimental uncertainty in measurement. (Only if they are enrolled in or have already taken and passed a associated, relevant physics lab course such as PHY 133 or PHY 134).
- 7. Students will demonstrate scientific communications skills through thoughtful discussion, collaborative problem solving, and dissemination of experimental results. (Only if they are enrolled in or have already taken and passed associated, relevant physics lab course such as PHY 133 or PHY 134).

PHY 126 already satisfies the standard SNW learning objectives 1,2,3 and gives students the tools they need to satisfy learning objective 4. With associated, but relevant PHY 133 and PHY 134 lab course(s) that are taught separately from PHY 126, learning objectives 5,6,7 are also satisfied.

Preparation by you (individual responsibility of each student)

This is crucial for success. This Syllabus (a work in still in progress to be posted on Blackboard no later than 8/24/2019) followed by the 5 page Schedule Calendar (SchCal), will be available to you via a link in the upper-left ``gray" area of the Blackboard PHY 126.01 home page. As the SchCal shows, in 14 weeks the course will span textbook material from Chaps. 12-20 and 32-35 and be augmented by weekly, online MasteringPhysics (MP) homework assignments, chapter by chapter, with usual deadlines of 10:00 pm on Saturdays. The statement at the top of page 1 from the Undergraduate Course Bulletin presents a synopsis of the course content. You are expected to, and it is in your best interest to read the material from each chapter carefully before you attend the lectures covering it. (See the SchCal!) Careful reading of a chapter carefully takes hours, not minutes. Do not wait until the last minute to work on reading and homework. ``But I didn't have enough time to do them!" will not gain you an extension. Planning ahead and time-management are crucial for success in this course and in life.

Rules Regarding Homework:

- You may (not) collaborate with PHY 126 classmates on MP homework if you are (not) actively contributing to the solutions. Copying someone else's MP answers will not help you in the long run, <u>especially</u> on exams, during which you must work alone. Evidence supporting this conclusion will be shown in the first lecture.
- You may (and are encouraged to) use the library and all available resources to help solve (but NOT copy answers for) **MP** problems. Use of spreadsheets, Mathematica, or other software tools are encouraged.
- **MP** homework submitted late (i.e., after its deadline) will <u>**not**</u> be accepted for grading.

Lecture

Attendance is **required** and will be enforced with in-lecture clicker questions that contribute to your final grade.

Lectures starts **promptly** at 8:30 AM in Simons Center room 103 and end at 9:50 AM. They will include projected slides, clicker questions, short videos, occasional chalkboard work, and live demonstrations. "Example Problems", most of which are chosen from the textbook (and are highlighted in **red**,), will be presented in a step-by-step fashion to emphasize both physical concepts and problem-solving techniques. Our textbook is very strong in this regard; every chapter has many such **red-highlighted** example problems. You should expect that some exam problems will be based on them. Therefore, working solutions to the highlighted example problems **yourself** (not just reading them casually) is one of the best ways (i) to learn the physics and (ii) to prepare for each exam. You should read chapter material **before** the next lecture! Prof. Koch will record each lecture in Simons 103 with a movie camera and post it in the "Echo 360" online repository, typically later that day, on Blackboard. Similarly, pdf's of slides projected in lecture, will be followed up in the next lecture

by careful discussions of "clicker slides" that had half or more than half of the clicker-submitted answers incorrect.

Students should take advantage of the pdf files and recorded movies from each lecture posted on Blackboard.

Lectures cancelled on account of snow or other inclement weather, e.g., hurricanes

Classes may be cancelled because of a hurricane, heavy snow, or other events. If this happens expect Prof. Koch to prepare his "work-around" for the lecture time lost. In his office he will make a 1-hour "screencast" using an iPad tablet paired with his laptop computer. They will simultaneously record his voice (audio) and the projected images (mostly Powerpoint slides). The screencast lecture will then be uploaded to the Echo 360 Center on Blackboard. <u>All students will</u> <u>be expected to "digitally attend" each such lecture screencast</u>. The slides for each screencast will also be converted to a pdf file and posted in our PHY 126 Documents folder.

Recitation sections (R01, R02, R03, R04, R06, R07) [R05 was cancelled]

Since ~10² students cannot receive significant individual attention during lectures in Simons Center 103, PHY 126 includes six recitation sections taught by faculty. They typically help students learn how to solve homework problems. A quiz given in each recitation will contribute to each student's recitation grade. Note (8/31/19 update in green): Recitation sections in large-enrollment PHY courses don't meet the first week of classes. Moreover, during a week when one or more recitation sections will not meet, e.g., the Labor Day Holiday (9/2/19), the 2-day Fall Break (14,15 October) and the 3-day Thanksgiving break (27, 28,29 November), no PHY 126 recitations will meet. If no other unscheduled break(s) occur (e.g., bad weather), all recitation sections will meet during 11 of the 15 weeks during the semester. SEE THE SchCal ! The SchCal and Syllabus will be updated as needed, and each update (changes highlighted in green) will be announced promptly on Blackboard and, verbatim, via email to all students and faculty.

Help Room (A-129 physics building)

Course and recitation instructors will contribute scheduled day/time periods that will be their PHY 126 help hours each week in room A-129 in the physics building and, perhaps, other scheduled time(s) in their offices. <u>Help Room A-129</u> <u>serves students in PHY 125, 126, 127, 131, 132, and the lab courses PHY 133 and 134</u>. (Help Room A-131 serves the mainly life-science-bound students taking PHY 121,2,3,4.) The schedule (Monday-Friday during most workday hours) for when the A-129 Help Room is being staffed will be posted electronically on Blackboard and on/near the A-129 hallway door by the second week of classes. Make sure you take advantage of the <u>free</u> assistance the A-129 Help Room provides <u>before</u> you find yourself having academic difficulty in PHY 126. <u>Do not come to the Help Room unprepared</u>! <u>Take your textbook</u> <u>and laptop/tablet with you</u>! Expect Help Room staff to begin by asking you to explain, in detail, the ``preparation done by you" before you come. Do <u>not</u> expect staff to help you on homework problems that you have neither looked at nor attempted before coming. It's <u>your</u> job to be prepared by ``determining where you're struggling'' <u>before</u> you come for help. Arriving unprepared will waste both your time and the time of the faculty and other staff in the Help Room.

Required vs. Optional Material (individual responsibility of each student)

- If you want to be sure of getting the course materials you need for PHY 126 in a timely fashion (i.e., before Fall 2019 classes start on 8/26/19), I recommend you make your purchases at our on-campus Stony Brook bookstore SBU SHOP RED because you will avoid delivery charges if you pick up the items there.
- 2. Here is a ``step-by-step" through the process of seeing (before you go to the campus bookstore) what your **bookstore purchases will likely be.** 1st: go to the https://www.bkstr.com/sbuweststore/home website. 2nd: At the top of that web page, click on **Textbooks**; it's between "Shop" on the left and a light gray Search box on the right. This takes you to a web page that has, in red, "Find My Course Materials". **3**rd: click on "Shop by Course ID". In that box type in the number 80512, the "Course ID" for PHY 126, Fall 2019. **4**th: Click on "FIND MATERIALS FOR 1 COURSE(S). That takes you to a web page with "My Course Materials" in red text. Just below "Section Note" you'll see "Mastering access code required. Textbook optional"; this will be clarified next. 5th: Type "MasteringPhysics" into the light gray search box at the top of the web page and hit return. This takes you to a web page giving 4 purchase choices. Pull down the "Sort By Relevance" box and click on "Price Low to High". The lowest one is \$96.75 for a MasteringPhysics Access code that will give you online access for the Fall 2019 semester to (a) the etext version of the textbook [G4] and (b) to the MasteringPhysics online homework assignments. This clarifies the "Required: Mastering Access code" statement in the 4th section of text 5 lines up from here. 6th: If you want to make the optional purchase (or rental https://www.bkstr.com/sbuweststore/help-fag/textbook-rental) of a "physical, hard copy" of the textbook (which is the "Starting at \$147.07" choice), but this optional purchase alone would leave you without the MasteringPhysics access code that you'll need for the online homework and etext. 7th: If you intend use physics in your future life from now on, I recommend you have your own printed version of the G4 book. (I still use my first college-level physics textbook.) NOTE: It's easier to use actual books (pages in "portrait" mode) than it is to read "portrait" pages on the "landscape" screen of a laptop. That's not a problem with, say, an iPad screen, but it would be unusual on a laptop. **MOREOVER**, you can't use the etext after your access to it expires.
- 3. UPDATE on 8/22/2019: GO TO ITEM 3b ON P. 7 OF THIS SYLLABUS BEFORE YOU CONSIDER THE REST OF ITEM 3 IN THIS PARAGRAPH. Whatever your choice, you must set up your online MP account to register your access code. (I'm not sure if you get that code digitally or on an actual, printed card.) To gain more information, click on the link http://help.pearsoncmg.com/mylabmastering/bbi/student/en/index.html to "Get started:". After reading that web page go to the additional web pages via the links in the green box providing six live links, from MyLab and Mastering for Blackboard ...to Support. Those pages have their own green boxes and live links. Use instructions on those web pages that links take you to. If you have trouble, contact Support at Pearson or ask a knowledgable classmate.
- You must use in lectures your own Turning Technologies (TT) *response-pad* (colloquially called a ``clicker"). See all of these links: <u>https://it.stonybrook.edu/help/kb/buying-clickers</u>; Video: <u>https://turningtechnologies-5.wistia.com/medias/oggoz5g9oa</u> Pdf: <u>https://marketing.turningtechnologies.com/LMS/LMS-Student/Blackboard9_1forTurningPointParticipants.pdf</u>.

- 5. Check if your purchase is a ``bundle" of a TT clicker with a TT ``subscription code" that licenses your TT clicker for use in our course), or if it is an unlicensed TT clicker. If you need to purchase a TT subscription code for the TT clicker you already have, see the links in paragraph 4. (If you need your TT clicker for another course, you must register it for that course, too, but you do NOT need to pay more.) NOTE: In PHY 126 Fall 2019 we do NOT use smartphones with a TT browser/app called Responseware. Prof. Koch still uses his older clicker Response Card NXT (P/N RCXR-02), which works fine; a newer TT clicker model is QT2.). Do NOT buy a TT clicker with "IR" in its model name; it is obsolete and cannot work in our course. It is each student's responsibility get a subscription code at his/her expense and use it to register his/her clicker via Blackboard. Check that the subscription will not expire during the Fall 2019 semester; that would cause big trouble. So beware: a TT clicker involves two different code numbers. Your TT ``account" number (subscription code) is a <u>8-hex-digit number</u>. The TT "device ID" is a <u>6-hex-digit number</u> on the back of my clicker. Do NOT confuse them. If you don't understand what hex digits are, look at the article "Hexidecimal" on Wikipedia.
- 6. You need to have calculator that <u>YOU</u> know how to use well, but just before exams or quizzes, you must ``flush its memory registers''. Use your calculator to calculate, <u>not</u> as an electronic formula sheet during exams. A smart-phone calculator is <u>not</u> allowed. Violation of these rules will lead to a reduction in grade of an exam or quiz. Your calculator should have the normal array of mathematical operations used in physics problems. ADVICE: Use the same calculator for homework, exams, and recitation-section quizzes.

Clickers (some operational details)

Clicker questions are an important part of lectures. Starting with Lecture 1 (8/27/19; see the **SchCal!**) the second projected slide for each lecture will be an attendance question: "Are you here with your clicker set to channel 21?" If you arrive late to a lecture and miss the attendance question, you won't get a clicker point. If you think your clicker is properly registered by the beginning (8:30 am, 8/27/19) of Lecture 1, you will be able to test that it functions correctly, but this will not earn a point. Starting with Lecture 2 (8/29/19) with a properly licensed and registered clicker used correctly in the second slide will be able to earn a clicker point for the student.

Unless you are explicitly told otherwise, expect that all ``physics-based" clicker questions <u>during the rest of the semester</u> will be ``for credit", with credit given only for correct answers. The <u>lowest 5 clicker scores</u> (percentage-wise) will be dropped for each student's worst-five lectures. That's the good news. The bad news is that <u>no excuse</u> will allow any student to have more than five "clicker-session" dropped. It's up to <u>you</u> to make sure that your clicker is properly registered and functioning properly. **Remember, clicker scores contribute 10% toward your final grade.** Be sure to read **carefully** the section on p. 5 of this Syllabus called **Academic Integrity**: both paragraphs!

Grades

Final grades will be calculated based upon contributions (MT = midterm exam; FE = final exam; Rec = recitation section; HW = MP) homework weighted by the following percentages:

	MT 1	MT 2	FE	Rec	HW	Clickers
Percentage	15	15	30	15	15	10

Your overall numerical score (ONS) for the semester, based upon the percentages listed above, will be compared to the following scale to determine end-of-semester letter grades for PHY 126. Note below that, e.g., 90⁻ means just <u>below</u> 90.00 (to 4 significant figures, e.g., no higher than 89.99), etc.

	А	A-	B+	В	В-	C+	С	D+	D	F
Percentage	90-100	85-90	80-85	75-80	70-75	65-70	55-65-	50-55	45-50-	< 45

You will be able to monitor your progress in the course via Blackboard and the MP website.

Recitations

Each student should be sure that s/he understands how the recitation instructor will determine the ``recitation grades". The lowest two quiz grades for each student during the semester will be dropped, i.e., not used in the calculations of

quiz-grade averages at the end of the semester. Average quiz scores will be compared among the recitation sections and *normalized* if they are found to have inconsistent means. Normalization is not ``curving" since the average scores will be brought to the same mean as one another without an overall shift to the class as a whole.

Exams (will use multiple-choice problems)

Midterm Exam 1: Oct. 1, will cover Chaps 12-15, and Midterm Exam 2: Nov. 5, will cover Chaps. 20 and 32-35. Two different locations will be used for each exam because of the need for allternate seating. Our large enrollment will require half of the students sitting for the exam in one lecture room, and the other half it for it in a different lecture room; PHY 126 course faculty will proctor.Times for each exam will need to be the same: likely 8:30 am-ish to 10:00 am-ish, but they are not yet certain. The final exam (it will be comprehensive) is scheduled for Dec. 11, 11:15 am-1:45 pm with alternate seating in rooms to be announced.

You are responsible for insuring that you can attend each exam at its scheduled day and time. An important part of your responsibility <u>at the beginning of the semester</u> is to make sure your schedule will allow for an orderly adherence to the class and exam (SchCal) calendars. If you miss an exam without a valid excuse that must be <u>documented in writing</u>, you will NOT be allowed to make up that missed exam. Your grade on it will be zero.

The exams are ``closed book" but ``limited notes." **Each student must prepare his/her own** <u>handwritten</u> formula **sheet(s).** For the midterm exams it must be no more than <u>one side</u> of one 8.5" x 11" sheet of paper; for the final exam it must be no more than <u>two sides</u> of one 8.5" x 11" sheet of paper. Proctors will check the formula sheets during the exam. Exams will emphasize testing your ability to think ``physically" (understanding concepts) and to do reasonable calculations (solve problems). We do <u>not</u> expect you to memorize formulas, but we <u>do</u> expect you to know how to use them <u>and</u> what all their math symbols mean <u>and</u> what their units are.

Warnings about final grades

If your academic program requires that you pass PHY 126 with a ``C or better", you should <u>not</u> expect that a D+ final grade will be rounded up to a C grade. By extension, this policy will apply at other grade boundaries, too. It's up to you to monitor your progress during the semester and, with the best work of which you are capable, to raise your own grade as high as <u>you</u> can. If, for whatever reason, you end up below some final grade boundary, do not ask if there is ``extra work" you could do to raise your grade after the course has ended. Such a question will not be answered because you know now, at the beginning of the course, the answer is ``no".

The university Policy Regarding Religious Observances

is at <u>https://www.stonybrook.edu/commcms/provost/faculty/handbook/employment/religious_holidays_policy.php</u>. Since the academic calendar has no religious holidays, see the List of Religious and Other Holidays at <u>https://www.stonybrook.edu/commcms/provost/faculty/handbook/employment/list_of_religious_and_university_holida</u> <u>ys#view-s2018</u>, affected students are expected to notify their lecture- and/or recitation-instructor(s) by email, in advance, but definitely thr final date of the `add/drop' period at 4:00 pm, <u>9/9/2019</u>, of their intention to be absent for any religious observance during the Fall 2019 semester. They can discuss with their instructor(s) before then how they will be able to secure the work covered.

Required Syllabi Statements The University Senate Undergraduate and Graduate Councils have authorized that the following required statements appear in all teaching syllabi (graduate and undergraduate courses) on the Stony Brook Campus. See the details on the website

https://www.stonybrook.edu/sb/bulletin/current/policiesandregulations/policies expectations/min instructional student resp.php

Minimal Instructional and Student Responsibilities

<u>https://www.stonybrook.edu/sb/bulletin/current/policiesandregulations/policies_expectations/min_instructional_student_resp.php</u> All students enrolled in PHY 126, Fall 2019, must read and understand all Policies & Regulations published at the link on the first line of this paragraph. Regularly enrolled students must do this before the first day of of classes (8/26/2019); Students enrolling after the first day of classes must do this before Late Registration ends at 4:00 pm, 9/9/2019.

Student Acccessibility Support Center (SASC) Statements

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact

the Student Accessibility Support Center (SASC), ECC (Educational Communications Center) Building, room 128, (631) 632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential. Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and SASC. For procedures and information go to the following website: <u>http://www.stonybrook.edu/ehs/fire/disabilities</u>.

Academic Integrity Statement (individual responsibility of each student) Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at <u>http://www.stonybrook.edu/commcms/academic_integrity/index.html</u>

This PHY 126 Instructor's Statement adds the following: In lecture, whenever a ``clicker" question is posed, you may discuss it with your neighbor(s). However, one person operating two or more clickers is cheating and will result in an Academic Dishonesty complaint being submitted by the instructor(s) to the Academic Judiciary against the owners/possesors of all involved clickers. You may discuss with your colleagues (other students or Help Room personnel) the ``physics" of assigned homework problems, but you should <u>not</u> ask to be given <u>nor</u> give to others actual solutions to those problems. Such collusion hurts both parties by answers being submitted that one or more students do not understand. In an exam in a lecture hall or a quiz in a recitation section, copying answers from another person or use of materials or communication other than what is allowed by the instructors will result in a claim of Academic Dishonesty being filed against you with a recommendation that the penalty be a final grade of **F** in PHY 126.

Critical Incident Management Statement: Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-

specific procedures.

Assessment of Student Performance

• Homework assignments, examinations, and term papers should be evaluated and returned promptly. Written comments, explaining the instructor's criteria for evaluation and giving suggestions for improvement, should be provided.

• Instructors are responsible for providing students with appropriate and timely notification about their academic performance in a course. An examination or other assessment measure should be administered, graded, and returned to students before the end of the ninth week of classes.

• Examinations and term papers submitted at the end of the term should be graded and either returned to students or retained for one semester.

• Any change to the course grading policy during the semester must be announced and made available to all students enrolled in the course. Assigning additional work to individual students who wish to improve their grades, during or after the semester, is prohibited.

• Instructors must observe the Final Examination Schedule available at <u>http://www.stonybrook.edu/registrar</u>. Instructors of courses taught on the semester schedule may only give a unit exam in class during the last week of the semester if a final examination is also given during the Final Examination Period.

• Instructors must observe state laws, federal laws, and University policies regarding accommodations as noted in the Bulletin (e.g., student participation in University-sponsored activities or equivalent opportunity/religious absences). Accommodations such as make-up exams, assignments, or other coursework that fall outside of the purview of these laws and policies are at the discretion of the instructor.

Professional Conduct and Interaction with Students

• Instructors must report all suspected occurrences of academic dishonesty to the Academic Judiciary Committee (for classes in the College of Arts and Sciences, College of Business, School of Marine and Atmospheric Sciences, and School of

Journalism) or the Committee on Academic Standing and Appeals (for classes in the College of Engineering and Applied Sciences).

• Instructors should always be aware that in teaching and advising they represent the University. They are bound by the University's sexual harassment policies. Instructors are also bound by University policies that prohibit any consensual relationships with students that might compromise the objectivity and integrity of the teacher-student relationship. Examples include romantic, sexual, or financial relationships.

• Instructors should strive to maintain the privacy and confidentiality of students' examinations, homework, and final grades.

• In dealing with students, instructors should be polite, helpful, and fair. They should take into account the wide range of cultural factors and physical challenges that can affect learning, and should attempt to help students overcome any disadvantages.

Posting and Updating of This Syllabus and the Schedule Calendar

This Syllabus and the Schedule Calendar are both posted on PHY 126 Spring 2019 Blackboard site. When, from time to time, they are updated, all students will be notified by an Announcement posted in Blackboard and sent via email to your official University email address. Make sure you check to see if the date of the version you're looking at is the most recent one!

This is the item 3b message referred to on p. 3 of this Syllabus.

3b. If you're having trouble getting a MasteringPhysics Access Code (and/or getting access to the etext), go to these two links and watch/read them carefully:

I STRONGLY suggest that you go to the link for a video: (its copyright date is 2019, so it should be up-to-date. <u>https://www.pearsonmylabandmastering.com/northamerica/students/get-registered-lms/index.html</u>

Watch the video as many times as you need to understand what you should do. This link, to me, shows how a student can gain access to MasteringPhysics from within Blackboard. Near the end of the video it shows how to purchase an Access Code online, directly from Pearson Publishing.

Here is a link to that to a Pearson 1-web-page pdf form : Read it VERY CAREFULLY. This describes how a student to gain a <u>temporary</u>, 14 day license for using MasteringPhysics, but the student MUST be sure to pay for it BEFORE the 14 day period expires. Otherwise, MP access will disappear for that student. If that happens, the student will have problems that Prof. Koch cannot fix. It will be better and safer for the student if s/he completes the purchase online without delayng the payment.

http://media.pearsoncmg.com/long/CEPM.selfpaced/MyLab.BlackboardIntegration/Get_Started_Flyer_Handout_ MyLab&Mastering_Blackboard%208.2013.pdf

Good luck!

Prof. Koch