Physics 2053C, *College Physics I with Lab*
Course Syllabus for CRNs 81616 and 81617
Florida Gulf Coast University, Fall 2012
Updated schedules Nov. 13, 2012; see red text in lecture schedule

Instructor: Dr. Derrick E. Boucher
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Office Hours: Mon. & Wed. 9:30am-12pm, Tues. 1:30-3:00pm. Office hours are open; first come, first served. Other times TBA or by appointment. These office hours may change as the semester progresses and any changes will be announced in class and on the course websites.

Course Schedule: Details available by August, 2012
Text: College Physics, Hybrid, 9th Edition, by Raymond A. Serway and Chris Vuille, published by Cengage, ISBN-10: 1111572070 ISBN-13: 9781111572075
Class meetings (Lecture): Mon. & Wed. 1:00am-2:50 pm, in AB7-220
Laboratory: 3:00-4:50pm on Monday (CRN 81616) and Wednesday (CRN 81617) in Griffin 267.
Calculator: You should have at your disposal a scientific calculator. Required functions are; $\sqrt{x}$, x^2, log, natural log, e^x, sin, cos, tan, y^x. If do you not already own one, expect to pay $1 to $200, depending on how fancy you want to get. Oh, and once you've spent the buck(s), bring it to class!

Websites:

Angel: Login with your FGCU email login and look for your CRN. I'll also post the syllabus and schedule here and all other essential course documents, like the equation sheet (for exams) lab procedures and so forth. **https://elearning.fgcu.edu/default.asp**

This is also where you will turn in electronic copies of your lab reports. See the Lessons tab. Paper copies must be handed in in class. The purpose of the electronic submission here is so that the reports can be checked for plagiarism and other naughtiness. It is your job to make sure that you submit both your electronic copy and your paper copy and to make sure that they are the SAME file. (Your paper copy may contain handwritten items not present in the electronic copy.)

Webassign : https://www.webassign.net/login.html
Course name : **Dr. Boucher's Phys 2053 fall 2012**
Course key : **fgcu 6519 0544**
Webassign is an online homework site that we will use. A subscription to this site is included with the purchase of a **new** textbook. If you are borrowing someone's text or purchased a used version you may have to purchase a subscription separately.
I will use this for course credit, so make sure you purchase a subscription. If it doesn't come with your textbook.

Dr. Boucher's homepage : http://ruby.fgcu.edu/courses/dboucher/index.htm
This website will actually contain many of the course documents, with Angel, etc. just linking to it. When in doubt you can go here.

Communication: When I use email to contact you or the class as a whole, I will use ONLY your FGCU email address or whatever address is given on Gulfline. Check this email regularly. I will generally not respond to messages in Angel or Webassign, thought I might think to check these, too.

Aim of the course:

This course introduces students to the fundamental laws governing the physical universe. These fundamental laws are concepts that can be expressed in words, and should become part of the student's view of the world. However, these laws are most usefully expressed mathematically. To gain a deeper understanding of the power of these laws, and to be able to use them in a quantitative manner, the student must become comfortable using mathematics to solve physical problems. The essential mathematical concepts for this course are algebra and trigonometry. All students must have taken the appropriate math courses before this course. Most of the necessary mathematical concepts will be briefly reviewed throughout the course, but those without the above prerequisites should contact me immediately.

At FGCU, College Physics is usually taken as a two semester sequence; Physics 2053 followed by Physics 2054, wherein electricity & magnetism, optics and some modern physics will be studied.

Reading the Textbook:

The course textbook is a good one, written by a physics professor who knows his physics *and* teaching physics. I will be assigning regular reading from the text that I expect you to read before class. It is crucial that you read what I expect you to read. Only by actually doing this reading and any assignments I give will you be prepared to learn during the next class. If you do not prepare, you will be lost and frustrated during class. Furthermore, any learning you do will be rushed and more damage control than actual progress.

Attendance:

I suggest very strongly that you attend every class. Missing class will have a significant negative impact upon your understanding of the material and consequently your grade. I have found it necessary to take attendance, and will do so using daily attendance sheets. If you miss the sheet at the beginning of class, please register your attendance with me before you leave. If you are absent three times this semester, 1% will be deducted from your **total final grade** for the fourth and every subsequent absence.

Grading: Your final grade will be comprised of the following:

Area	Grade
Laboratory	**17%**
Homework	**23%**
3 in class exams	**45%**
Final Exam	**15%**

The overall grading scale will be as follows:

Total Score [%]	Grade
88.0 - 100.0	**A**
84.0 - 87.9	**A-**
80.0 - 83.9	**B+**
76.0 - 79.9	**B**
72.0 - 75.9	**B-**
68.0 - 71.9	**C+**
64.0 - 67.9	**C**
60.0 - 63.9	**C-**
55.0 - 59.9	**D**
Below 54.9	**F**

Note: For a required course in your major, a C- is an unacceptable grade!

I will not try to quantify the important element of classroom participation, but it can be very important in cases where a student's final grade is "borderline" between two letter grades. Not only does classroom participation (i.e. **ASKING QUESTIONS**) help you, but it may bring to my attention a point which may need to be reviewed, which may help the other students as well. **Please, don't hesitate to ask questions at anytime**.

I will periodically give you individual grade reports so that at all times during the course you will know exactly where your grade stands.

Homework:

The purposes of the homework are so that you can gain some practice solving problems, and so that I may assess your grasp of the material before you are tested on it. We will use Webassign website for most homework. The online homework assignments will be frequent. "Copying" homework from a friend or working with them online may result in a higher homework grade for you, but it almost guarantees lower test scores. The online homework will only be available for a limited time, so plan your time carefully when the assignments are announced. I may occasionally assign problems to be handed in on good old-fashioned paper, too.

For all quizzes and exams, relevant "equation sheets" will be provided. It is my teaching philosophy that the memorization of formulas is less important than knowing *when and how to use* the formulas. I will provide you with copies of these equation sheets for studying. Thus, you should become familiar with the equation sheets and use them when doing your homework.

In addition to graded homework, I will give you optional practice assignments for each chapter. These are not "due" anytime and will remain open all semester. I will never grade these problems but they will be a valuable tool for test preparation.

Exams:

The exams will be composed primarily of problems which must be solved. Problem solving is a skill. Like riding a bicycle or cat juggling, it must be practiced. Therefore, the homework is an essential part of your test preparation. You cannot "cram" for a physics test. Practice early and practice often. The exam dates are given in the course schedule.

Everyone can have a bad day, and this can happen on an exam day. If you "bomb" a test there is still hope. If you score a higher percentage of the points on the final exam than your lowest test score, the final exam percentage will replace your lowest test score. (e.g. if your lowest test is 45% and you score an 81% on the final exam, your 45% score will be replaced by 81%.) If you miss an exam, you will be given a zero grade for that exam. (Thus, making it, you and I both hope, your lowest exam.) Make-up exams will be given only in situations where a student has already missed an exam and must miss another due to some grave reason, or due to some unavoidable conflict about which ***I am notified in advance*.**

Yes, the final exam is comprehensive and mandatory. Yes, really!

Quizzes:

The quizzes are based upon recent homework and reading. They will be **unannounced** and will be given during class. I plan on having about N=8 quizzes, each of which will take about 5-10 minutes of class time. Your highest N-1 quiz grades will be added to your homework grade as equivalent to a single homework assignment. Missed quizzes will be counted as zeroes.

Laboratory:

The laboratory is an integral part of this class. Failure to complete and hand in all laboratory assignments will result in an automatic **F** for the course. The laboratory will contribute 17% to your final grade, and **you must pass the laboratory to pass the class!** Do not be late for the lab sessions. If you are late, your lab report grade will be reduced by 10 points. You are not allowed to submit your lab report if you are late more than 30 minutes. Word- processed Laboratory Reports have to be submitted to the Angel site (an electronic file) and to your lab instructor (a hard copy) at the time specified in the syllabus. You must hand in **both copies** on time. They must be the same one. If you submit one version to Angel and give your instructor a different version, you receive **zero points**. **Hand-written Lab Reports will not be accepted (except for equations or diagrams)!** If you hand in your Lab Report late, there will be an automatic **deduction of 10 points** (out of a maximum of 100 points) for every day (including weekends).

Do not miss any lab sessions. You can make up only one lab later on. You will receive **an F grade** if you miss **two or more lab sessions**.

Office Hours

My office hours are open-door office hours; first come, first served. If you have a special request for a dedicated block of my time, either during my scheduled office hours or at other times, I am very happy to accommodate you. You should feel free to ask me any questions regarding the material. In the past, many students have done quite well by coming to me with questions regarding work *before it is due*. (i.e. working on homework or a lab report.)

Class Etiquette:

As adults, you are expected to be courteous and respectful of both your fellow classmates, as well as myself. In this vein, I expect you to be attentive in class, to turn off mobile phones and other electronic devices BEFORE you enter the classroom (or, if there is some impending personal emergency, please use a vibrating or other non-distracting alarm on your phone), and to avoid disruptive behavior during class. You may use a laptop or tablet computer for taking notes only.

Any disallowed use of an electronic device will entitle me to confiscate your device and may affect your grade in the course. Upon your first offence, I will warn you.Upon the second offence I will confiscate the device until the end of the current class session. Upon the third offence I will fail you for the course. So, please, don't even try.

Our classroom is not a prison, and you may leave if you *need* to, but I do ask to that you use this privilege at a minimum and be quiet when you do so. Finally, the rustling of books and papers to signify the end of class is highly frowned upon. (I will be the one frowning!) If you find that I am running over the scheduled class time, please let me know. If you must leave class early, please inform me before class starts so that I won't be alarmed or concerned when you do so.

Academic Behavior Standards and Academic Dishonesty

All students are expected to demonstrate honesty in their academic pursuits. The university policies regarding issues of honesty can be found under the "Student Code of Conduct" and under "Policies and Procedures" of the Student Guidebook . All students are expected to study this document which outlines their responsibilities and consequences for violations of the policy. The FGCU Student Guidebook is available online at http://studentservices.fgcu.edu/judicialaffairs/new.html Students agree that by taking this course all required papers may be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Terms and Conditions of Use posted on the Turnitin.com site. **Any misbehaviors and or misconducts will be promptly reported to the Dean of Students.**

Disability Accommodations Services

Florida Gulf Coast University, in accordance with the Americans with Disabilities Act and the university's guiding principles, will provide classroom and academic accommodations to students with documented disabilities. If you need to request an accommodation in this class due to a disability, or you suspect that your academic performance is affected by a disability, please see me or contact the Office of Adaptive Services. The Office of Adaptive Services is located in Howard Hall 137. The phone number is 590-7956 or TTY 590-7930. I am very willing to accommodate any requests, but I require that any requests be made at least a week in advance so that I can properly prepare the accommodation.

Student Observance of Religious Holidays

All students at Florida Gulf Coast University have a right to expect that the University will reasonably accommodate their religious observances, practices, and beliefs. Students, upon prior notification to their instructors, shall be excused from class or other scheduled academic activity to observe a religious holy day of their faith. Students shall be permitted a reasonable amount of time to make up the material or activities covered in their absence. Students shall not be penalized due to absence from class or other scheduled academic activity because of religious observances. Where practicable, major examinations, major assignments, and University ceremonies will not be scheduled on a major religious holy day. A student who is to be excused from class for a religious observance is not required to provide a second party certification of the reason for the absence.

Schedule

Date	Reading, Topics Covered	Due	Comments
August M 20 Session 1	*Introduction*, Chapter 1		Review course policies WebAssign overview
W 22 Session 2	*Motion in One Dimension*, Chapter 2	HW 1 due Friday 8/24	
M 27 Session 3	Chapter 2 continued PPD: TS Isaac		
W 29 Session 4	Chapter 2 continued	HW 2 due Tues 9/4	
September M 3	**Labor Day**	**No Classes**	
W 5 Session 5	*Vectors and Two-Dimensional Motion*, Chapter 3		
M 10 Session 6	Chapter 3 continued	HW 3 due Mon. 9/10	
W 12 Session 7	Review for Exam 1	HW 4 due Wed. 9/12	Exam 1 will cover chapters 1-3
M 17 Session 8	**Exam 1**		Don't forget to bring your own calculator!
W 19 Session 9	*The Laws of Motion*, Chapter 4		
M 24 Session 10	Chapter 4, continued		
W 26 Session 11	Chapter 4, continued		
October M 1 Session 12	*Energy*, Chapter 5		
W 3	Chapter 5 continued		

Session 13			
M 8 Session 14	*Momentum and Collisions*, Chapter 6	HW 5 due Mon. 10/8	
W 10 Session 15	Chapter 6, cont.,		Chapter 7 will NOT be on exam 2.
M 15 Session 16	*Rotational Motion and the Law of Gravity*, Chapter 7, exam 2 review	HW 6 due Mon. 10/15	Exam 2 will cover Chapters 4-6
W 17 Session 17	**Exam 2**		Don't forget your calculator!
M 22 Session 18	Chap. 7 cont.,		
W 24 Session 19	*Rotational Equilibrium and Rotational Dynamics, Chapter 8*	HW 7 due Wed. 10/24	
M 29 Session 20	Chap. 8 cont.		**Friday Nov. 2 is the last day to withdraw from classes without academic penalty.**
W 31 Session 21	*Solids and Fluids*, Chapter 9		**BOO!**
November M 5 Session 22	Chap. 9 cont., review for exam 3	HW 8 due Mon. 11/5	Exam 3 will cover Chapters 7-8
W 7 Session 23	**Exam 3**		Don't forget your calculator!
M 12	**Veterans' Day**		**No Classes**
W 14 Session 24	*Thermal Physics*, Chapter 10	HW 9 due Mon. 11/19	
M 19 Session 25	*The Laws of Thermodynamics*, Chapter 12		
W 21 Session 26	*Vibrations and Waves*, Chapter 13	HW 10 due Mon. 11/26	**Thanksgiving break Thurs. 11/22 to Sat. 11/24**
M 26 Session 27	*Sound* Chapter 14	HW 11 (ch 12) due Wed. 11/28	
W 28 Session 28	Chapter 14 continued	HW 12 (ch 13) due Fri. 11/30	
December M 3 Session 29	Review for final exam	HW 13 (ch 14) due Mon. 12/3	

Wed. Dec. 12 1:30PM - 4:15PM	**FINAL EXAM for both CRNs**	**AB7 room 220**	Don't forget your calculator!

LAB SCHEDULE Monday = CRN 81616 Wednesday = CRN 81617

Key: SL = short lab report format LO = long format See **http://ruby.fgcu.edu/courses/dboucher/index.htm** under Laboratory for guidance on the formats.

Date	**Laboratory activity**	**Due**	Comments
August M 20 Session 1	*1st meeting, orientation, attendance* Lab 1, Measurement		
W 22 Session 1	*1st meeting, orientation, attendance* Lab 1, Measurement		
M 27 Session 2	Lab 2, Graphical Representation of motion **cancelled due to TS Isaac**	Lab 1 (SL)	
W 29 Session 2	Lab 2, Graphical Representation of motion **cancelled due to TS Isaac**	Lab 1 (SL)	
September M 3	**Labor Day**	**No Classes**	
W 5	**No lab**		Wed. lab will skip to keep the schedule simple.
M 10	Lab 3, Freefall	No lab 2 report	
W 12	Lab 3, Freefall	No lab 2 report	
M 17	Lab 4, Projectile Motion	Lab 3 (SL)	
W 19	Lab 4, Projectile Motion	Lab 3 (SL)	
M 24	Lab 5, Equilibrium of Forces	Lab 4 (LO)	
W 26	Lab 5, Equilibrium of Forces	Lab 4 (LO)	
October M 1	Lab 6, Centripetal Force	Lab 5 (SL)	
W 3	Lab 6, Centripetal Force	Lab 5 (SL)	

M 8	Lab 7, Momentum Conservation	Lab 6 (LO)	
W 10	Lab 7, Momentum Conservation	Lab 6 (LO)	
M 15	**No lab**	**No Lab**	
W 17	**No lab**	**No lab**	
M 22	Lab 8, Buoyancy	Lab 7 (SL)	
W 24	Lab 8, Buoyancy	Lab 7 (SL)	
M 29	Lab 9, Specific Heat	Lab 8 (SL)	**Friday Nov. 2 is the last day to withdraw from classes without academic penalty.**
W 31	Lab 9, Specific Heat	Lab 8 (SL)	**BOO!**
November M 5	Lab 10, Mass on a Spring	Lab 9 (LO)	
W 7	Lab 10, Mass on a Spring	Lab 9 (LO)	
M 12	**Veterans' Day No Lab**	**No Lab**	**No Classes**
W 14	**No Lab**	**No Lab**	
M 19	Make-up Lab	Lab 10	
W 21	Make-up Lab	Lab 10	**Thanksgiving break Thurs. 11/22 to Sat. 11/24**
M 26	Review session/problem solving	Make-up Lab	
W 28	Review session/problem solving	Make-up Lab	
December M 3	Review for final exam		
Wed. Dec. 12 1:30PM - 4:15PM	**FINAL EXAM for both CRNs**		