

## PHYS 1111: Introduction to Physics I (Online)

### Syllabus

Fall 2013

**Instructor:** Dr. Kisa Ranasinghe (Hint: say “Rana-sing-ha”)

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**Office Location:** Southern Polytechnic State University, H260h

**Office Hrs:** MWF 11.00 am-12.00 noon

**Virtual Office Hours:** Wednesday 10.00pm to 11.00pm

For course inquires please use the D2L mail tool at the very top of the browser or the discussion forum. Any questions you have regarding the course materials during the week days will be answered within 24 hours during weekdays. The comments to your responses will be given with in 48 hours. Your assignments will be graded within one week. I am not available online on weekends or holidays.

If you need to communicate with me privately, please send me an email to [ksranasin@spsu.edu](mailto:ksranasin@spsu.edu) and I will respond as quickly as possible.

### Course Description

This is an introductory course, which will include material from mechanics (kinematics, dynamics, work and energy, momentum and collisions, and rotational motion and statics), and may also include thermodynamics and waves. Elementary algebra and trigonometry will be used.

This course is designed to provide the best online learning experience possible. The content is presented in a variety of formats including textbook materials, online content, multimedia “tutorials”, Internet resources, quizzes and opportunities for interaction with other students and the instructor.

The course is designed for a 16-week semester, based on the text “ *Physics, Cutnell and Johnson, 9<sup>th</sup> Edition*”. The course is divided into 16 modules. Each week starts at Eastern standard time 00.00AM on Monday and ends at 11:59PM on Sunday. All the assignments, quizzes, homework, and discussions are due at the end of the week.

### Students Learning Outcomes:

1. Explains and interprets physical situations as stated in a word problem
2. Demonstrate a working knowledge in kinematics
3. Students understand the principles of forces, energy and work and have a working knowledge of its application.
4. Students effectively apply knowledge to solve problems in rotational kinematics and dynamics
5. Demonstrate knowledge in core principles of waves and vibrations

### Required Materials:

Textbook: Physics, Cutnell & Johnson Volume I; 9<sup>th</sup> Ed and

Web-assigned Self Enrollment

Class Key: **spsu 9324 2467**

Technical Requirements: You will need a headphone and microphone for live GoTo meetings.

### **Discussion:**

There are two discussions per module and the students are expected participate the discussion actively and to post at least three comments on other's answers on each discussion. Posting to the discussion forums at the last hour of the deadline does not give your classmates ample time to respond. Go back to discussion often and read others and make sure you answer if some one asked you a question, including your professor. If I asked a question and you did not answer points will be deducted. Please refrain from just posting your comments and never going back. You will be graded on all these aspects of your participation.

I will not respond to every comment, but I will be reading every comment. Discussion posts will be graded primarily for **quality, correctness, and timeliness**. You must follow netiquette and your post must be constructive. In a typical week you have two discussions. Use the following timelines for discussions.

Discussion 1: Post your response **by Tuesday midnight**.

Start posting comments to your peer's responses **at least by Wednesday**.

Discussion 2: Post your response **by Thursday midnight**.

Start posting comments to your peer's responses **at least by Friday**.

Third discussion is questions and comments. Use that discussion to discuss the questions you have regarding the assignments, quiz, material..or any other concerns.

You can ask questions or respond generally to the overall audience. Be honest, clear, and concise. Always use constructive language, even in criticism, to work toward the goal of positive progress. Comments like 'good job', 'nice answer, etc.... are not considered as valid response. Discussion responses will be accepted 24 hrs after the due date for intellectual value, but will not be considered in their grade. When I reply to your answers, I will be asking questions which you are required to answer to obtain full points.

**Assessment/Quiz:** You will be given online quiz every week from the material covered. The quizzes would be available during the entire week. The quiz will be 60 minutes long. After the 60 minutes you will not have a chance to submit, therefore use your time appropriately. All quizzes must be completed at the end of Sunday 11:59 pm regardless of the availability

**Homework Assignments:** All homework assignments will be via webassign. All home work will be scheduled on webassign and all work must be submitted at the end of Sunday 11:59pm regardless of the availability. Please do not submit any work via email.

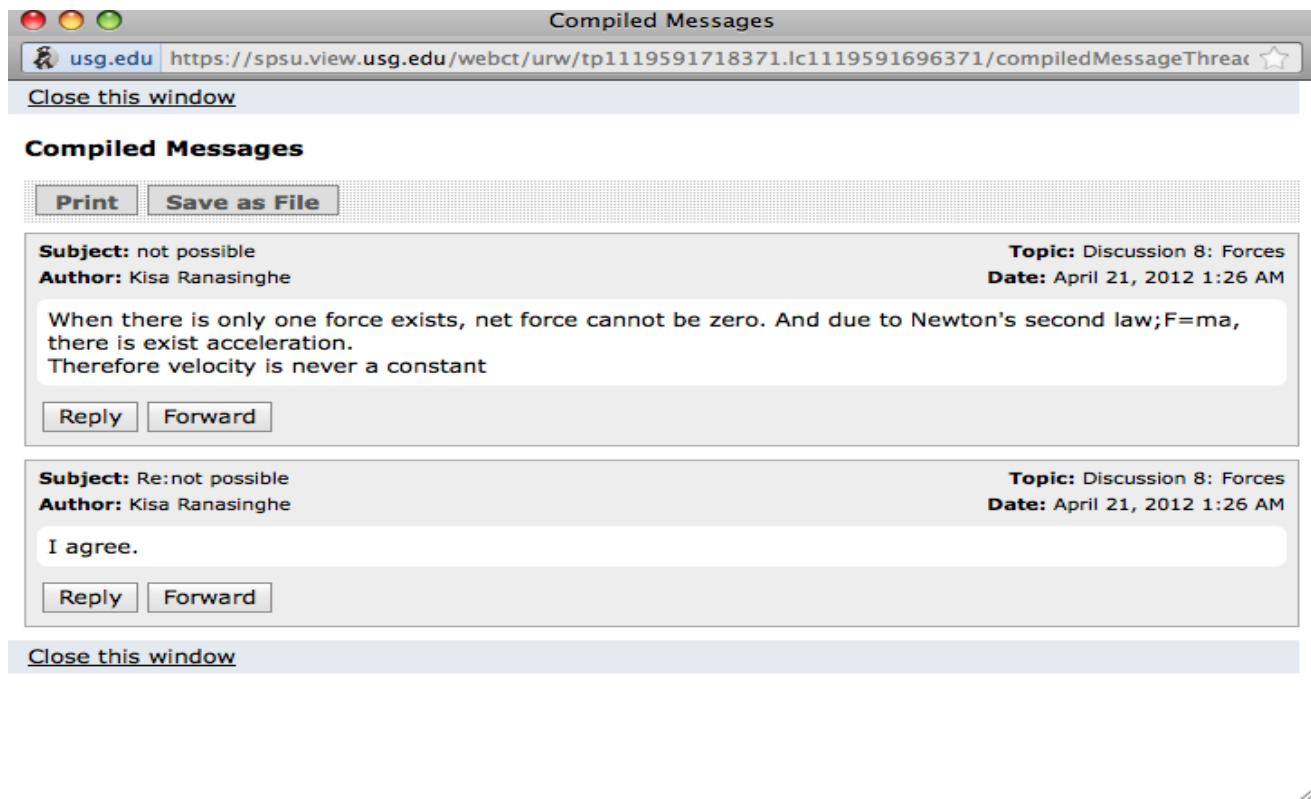
**Final Exams:** A comprehensive 2 hr multiple choice Final Exam will be schedule on a later date by the registrar's office and the time constraints for the Final Exam will be strictly enforced. Final Exam will count for 25% towards your total grade.

**Grading:**

Assignments (webassigned)	15.00%
Discussion	40.00%
Assessment/Quiz	20.00%
Final Exam	25.00%
Total	100.00%

Grading Rubric for Discussion: 20 points will be given to correct, clear logical answer, 5 points for answering the professor on her questions and comments and another 15 points for participating on 3 peer postings constructively (5 points for each response).

Examples:



The first response is clear, logical, and conceptually correct. Therefore will get full 20 points. The second response is insufficient and will not be considered as a good participation. Therefore will received only 0.5 point.

## Course Outline

Below is an outline of the content and activities in each unit of the course. All due dates for activities are in Eastern Standard Time.

Modules	Content/Activities
Course Info - Start Here Week 1	Complete Orientation Activities Response to discussion Syllabus Quiz with 100%
Module 1: What is Physics? Week 1	Study reading material and narratives, simulations, and demonstration (course resources) Response to discussions Submit Assignments Complete the assessment on time
Module 2: Kinematics 1D week 2	Study reading material and narratives, simulations, and demonstration (course resources) Response to discussions Submit Assignments Complete the assessment on time
Module 3: Kinematics 2D week 3	Study reading material and narratives, simulations, and demonstration (course resources) Response to discussions Submit Assignments Complete the assessment on time
Module 4: Forces I Week 4	Study reading material and narratives, simulations, and demonstration (course resources)

	<p>Response to discussions</p> <p>Submit Assignments</p> <p>Complete the assessment on time</p>
<p>Module 5: Forces II</p> <p>Week 5</p>	<p>Study reading material and narratives, simulations, and demonstration (course resources)</p> <p>Response to discussions</p> <p>Submit Assignments</p> <p>Complete the assessment on time</p>
<p>Module 6: Circular Motion</p> <p>week 7</p>	<p>Study reading material and narratives, simulations, and demonstration (course resources)</p> <p>Response to discussions</p> <p>Submit Assignments</p> <p>Complete the assessment on time</p>
<p>Module 7: Work and Energy</p> <p>week 8</p>	<p>Study reading material and narratives, simulations, and demonstration (course resources)</p> <p>Response to discussions</p> <p>Submit Assignments</p> <p>Complete the assessment on time</p>
<p>Module 8: Impulse and Momentum</p> <p>Week 9</p>	<p>Study reading material and narratives, simulations, and demonstration (course resources)</p> <p>Response to discussions</p> <p>Submit Assignments</p> <p>Complete the assessment on time</p>
<p>Module 9: Rotational Kinematics</p>	<p>Study reading material and narratives, simulations, and demonstration (course resources)</p>

Week 10	Response to discussions Submit Assignments Complete the assessment on time
Module 10: Rotational Dynamics Week 11 and 12	Study reading material and narratives, simulations, and demonstration (course resources) Response to discussions Submit Assignments Complete the assessment on time
Module 11: Waves and Interference Week 13 and 14	Study reading material and narratives, simulations, and demonstration (course resources) Response to discussions Submit Assignments Complete the assessment on time
Module 12: Temperature, Heat, and Heat Transfer Week 15 and 16	Study reading material and narratives, simulations, and demonstration (course resources) Response to discussions Submit Assignments Complete the assessment on time
TBA	<b>Final Exam</b>

### Course Expectations and D2L

**Expectations/Class Participation:** You are going to learn Physics online. I need to explain you that this is not going to be a walk in the park. Each week you have considerable amount of materials to read and understand, discussion to participate, assignments to submit and a quiz to take. In order to be successful you need to do more than the assigned work. You are expected to complete all homework assignments with in the give due dates.

For this online class, you should expect to spend four to five hours everyday on coursework. Logging in at least five times a week is minimally necessary to be productive and to interact with your peers.

My role will be one of facilitator for this interaction, so I will not be responding to every comment. However, I will be looking in frequently during the week. Discussion posts will be graded primarily for **quality, correctness, and timeliness**.

It is required to post at least three comments on your peers. Comments like “*good job*”, “*nice answer*”, “*I like your answer*”, “*you made a good comment*” etc.... are not considered as valid comments. Every comment must bring an input to the discussion that is constructive and productive, that should carry further. Say why you like it, why is it a good comments, what think what can you add to it. Try not to do minimum, as participation in your discussion is the main way to learn and earn good grades. Posting to the discussion forums at the last hour of the deadline does not give your classmates ample time to respond. Do not repeat the same comment to every one, if you do so, all three comments will be treated as one.

The more effort exerted by all to complete readings, meet the due dates and participate in the online discussions, the more meaningful and dynamic the learning experience for all.

**Student Responsibility:** Distance learning requires more individual discipline than traditional classes, and requires that you have control over your time and schedule. All the materials on a given module is due at the end of the week. There will be no reminders. No late work will be expected for any reason. It is not easier or less time than face-to-face courses. It infact will be mich harder to learn physics by your self. Remember my role would be a facilitator not a lecturer. **Always follow rules of netiquette** as indicated in the “Start Here” module.

Important Dates:

Dropp/add: 08/19/2013

Engagement reports due:9/4/2013

Withdrawal day: 10/3/2013

**Contacts to get Help:**

For Technical Support,

Call: 678-915-**HELP** (x4357)

[support@spsu.edu](mailto:support@spsu.edu)

<http://spsu.edu/uits/gethelp.htm>

**D2L Online Support Center**

<https://d2lhelp.view.usg.edu/>

For Go to Meeting Support, [Patrick Fisk](mailto:Patrick Fisk), [classroomsupport@spsu.edu](mailto:classroomsupport@spsu.edu) or 678-915-4357

If there is an emergency and you can't reach me via phone or email, call the Physics office (678-915-7215)

**Resources:**

Remote access to Library Resources <http://www.spsu.edu/library/Dl/dl.html>

Business Department Resources <http://www.spsu.edu/business/webx/rc.htm>

## **University Policies**

### **Academic Honesty:**

“A faculty member reserves the right to remove any student from his or her course if the student’s behavior is of a disruptive nature or if there is evidence of academic dishonesty.” (*SPSU Catalog*)

### **Disability Statement:**

“A student at Southern Polytechnic State University who has a disabling condition and needs academic accommodations has a responsibility to voluntarily identify him/herself as having a disability by scheduling an appointment with the Disability Services Coordinator as soon as possible.” (*SPSU Catalog*). The coordinator can be contacted at 678-915-7244