

Course Syllabus

NOTE: This syllabus is subject to change during the semester. Please check this syllabus on a regular basis for any updates.

Department : Occupational Safety and Health Technology (OSHT)

Course Title : SCIT 1318 Physics

Section Name : Web

Start Date : January 22, 2013

End Date : March 22, 2013

Modality :

Credits :

Instructor Information

Name : Chris Parks

OC Email : cparks@odessa.edu

OC Phone # : 832-495-9115

Course Description

SCIT 1318 is an introduction to physics for students who have limited backgrounds in science and mathematics. Topics include motion, solid mechanics and fluid mechanics, properties of matter, heat and thermodynamics.

Prerequisites/Corequisites

Introductory Algebra (suggested).

Description of Institutional Core Objectives (ICO's)

Given the rapid evolution of necessary knowledge and skills and the need to take into account global, national, state, and local cultures, the core curriculum must ensure that students will develop the essential knowledge and skills they need to be successful in college, in a career, in their communities, and in life. Therefore, with the assistance of the Undergraduate Education Advisory Committee, the Coordinating Board has approved guidelines for a core curriculum for all undergraduate students in Texas.

Through the application and assessment of objectives within the institution's core curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world; develop principles of personal and social responsibility for living in a diverse world; and advance intellectual and practical skills that are essential for all learning. Appropriate Odessa College faculty periodically evaluates all of the courses listed in the descriptions on the following pages of this catalog and keys them to Odessa College's Institutional Core Objectives (ICOs), as defined by the Texas Higher Education Coordinating Board (THECB). (Source: *Odessa College Catalog of Courses 2012-2013, page 73*)

Description of Odessa College's Institutional Core Objectives (ICOs)

- 1 Critical Thinking Skills - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- 2 Communication Skills - to include effective development, interpretation and expression of ideas through written, oral and visual communication
- 3 Empirical and Quantitative Skills - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
- 4 Teamwork - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal
- 5 Personal Responsibility - to include the ability to connect choices, actions and consequences to ethical decision-making
- 6 Social Responsibility - to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

Course Objectives

- Define the basic terminology as related to applied physics.
- Explain and apply the relationship between length, mass, and time.
- Demonstrate problem-solving techniques related to physics principles.
- Solve appropriate physics problems using vector mathematics.
- Summarize the laws of motion.

Required Readings/Materials

- The Cartoon Guide to Physics by Larry Gonick and Art Huffman. ISBN 0-06-273100-9
- The Physics of Star Trek Rev. 7. ISBN 0-465-00204-8 or 978-0-465-0024-7

Course Requirements (Lectures, Assignments and Assessments)

Applied Physics I deals with introductory topics in physics. Topics to be covered include motion, solid mechanics, fluid mechanics, the properties of matter and thermodynamics.

The semester will be broken down into four course topics, or areas of emphasis, to focus on specific elements. Each of these topics will include a reading assignment and a problem set. The problem set will allow for the demonstration of learning in the topic area.

Following are the course topics. Problem sets will be assigned in the Assignments Section.

Topic 1 - Terminology, Units, Vectors

This covers units of measure, physical quantities, and vectors. Motion along a straight line will also be covered.

Topic 2 - Laws of Motion

Covered in this assignment is motion in two and three dimensions, Newton's Law of Motion, and ways to apply Newton's Law of Motion.

Topic 3 - Solid and Fluid Mechanics

This chapter applies to fluid mechanics.

Topic 4 - Thermodynamics

Topics covered include temperature and heat. Additional topics include the thermal properties of matter.

Grading Policy

This course will include:

Completion of a Discussion Topic (15% of Grade)
Completion of 3 problem solving assignments (10% of Grade each)
Completion of a final examination (35% of Grade)
Completion of a 2 page book report (20% of Grade)

Grades & Grading:

Grades will be awarded on the following percentages:

A = 90-100%
B = 80-89%
C = 70-79%
D = 60-69%
F = Below 60%

This course is broken into three parts: a problem set portion, a final exam and a book report.

The final exam will consist of 10 problems. Each problem will be worth 10 points.

Academic Policies

Note that the OC Student Handbook states (page 32) that “[i]n cases of academic dishonesty, the instructor has the authority to impose appropriate scholastic penalties. Complaints or appeals of disciplinary sanctions may be filed in accordance with the college due process procedure. Copies of the college due process procedure are available in the office of The Director of Student Life (CC104).”

For more information on your rights and responsibilities as a student at Odessa College, please refer to the following: *The 411 of OC: Student Handbook 2012-2013; Student Rights & Responsibilities* <http://www.odessa.edu/dept/studenthandbook/handbook.pdf>

Scholastic Dishonesty

Scholastic dishonesty shall constitute a violation of these rules and regulations and is punishable as prescribed by board policies. Scholastic dishonesty shall include, but not be limited to, cheating on a test, plagiarism and collusion.

"Cheating on a test" shall include:

- Copying from another student's test paper
- Using test materials not authorized by the person administering the test.
- Collaborating with or seeking aid from another student during a test without permission from the test administrator.
- Knowingly using, buying, selling, stealing or soliciting, in whole or in part, the contents of an unadministered test.
- The unauthorized transporting or removal, in whole or in part, of the contents of the unadministered test.
- Substituting for another student, or permitting another student to substitute for one's self, to take a test.
- Bribing another person to obtain an unadministered test or information about an unadministered test.
- "Plagiarism" shall be defined as the appropriating, buying, receiving as a gift, or obtaining by any means another's work and the unacknowledged submission or incorporation of it in one's own written work.
- "Collusion" shall be defined as the unauthorized collaboration with another person in preparing written work for fulfillment of course requirements. (Source: *Odessa College Student Handbook 2012-2013, page 29-30*)

Special Populations/Disability Services/Learning Assistance

Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. If you have any special needs or issues pertaining to your access to and participation in this or any other class at Odessa College, please feel free to contact me to discuss your concerns. You may also call the Office of Disability services at 432-335-6861 to request assistance and accommodations.

Odessa College affirms that it will provide access to programs, services and activities to qualified individuals with known disabilities as required by **Section 504 of the Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act of 1990 (ADA)**, unless doing

so poses an undue hardship or fundamentally alters the nature of the program or activity. Disabilities may include hearing, mobility or visual impairments as well as hidden disabilities such as chronic medical conditions (arthritis, cancer, diabetes, heart disease, kidney disorders, lupus, seizure disorders, etc.), learning disabilities or psychiatric or emotional disabilities. A student who comes to Odessa College with diagnosed disabilities which may interfere with learning may receive accommodations when the student requests them and submits proper documentation of the diagnosis. A Request for Accommodations form and guidelines for beginning the request process are available in the OC Help Center or on the Odessa College web site at www.odessa.edu/dept/counseling/disabilities.htm. The college strives to provide a complete and appropriate range of services for students with disabilities such as assistance with testing, registration, information on adaptive and assistive equipment, tutoring, assistance with access and accommodations for the classroom where appropriate. For information regarding services, students with disabilities should contact the Office of Disability Services in the OC Help Center located in Room 204 of the Student Union Building or call 432-335-6433. (Source: *Odessa College Catalog of Courses 2012-2013, page 52*)

Odessa College affirms that it will provide access to programs, services and activities to qualified individuals with known disabilities as required by **Section 504 of the Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act of 1990 (ADA)**, unless doing so poses an undue hardship or fundamentally alters the nature of the program or activity. Disabilities may include hearing, mobility or visual impairments as well as hidden disabilities such as chronic medical conditions (arthritis, cancer, diabetes, heart disease, kidney disorders, lupus, seizure disorders, etc.), learning disabilities or psychiatric or emotional disabilities. A student who comes to Odessa College with diagnosed disabilities which may interfere with learning may receive accommodations when the student requests them and submits proper documentation of the diagnosis. A Request for Accommodations form and guidelines for beginning the request process are available in the OC Help Center or on the Odessa College web site at www.odessa.edu/dept/counseling/disabilities.htm. The college strives to provide a complete and appropriate range of services for students with disabilities such as assistance with testing, registration, information on adaptive and assistive equipment, tutoring, assistance with access and accommodations for the classroom where appropriate. For information regarding services, students with disabilities should contact the Office of Disability Services in the OC Help Center located in Room 204 of the Student Union Building or call 432-335-6433. (Source: *Odessa College Catalog of Courses 2012-2013, page 52*)

Dropping a Course or Withdrawing from College

Students wishing to drop a non-developmental course may do so online using WebAdvisor, at the Wrangler Express, or Registrar's Office. A student wishing to drop a developmental course or withdraw from college should obtain a drop or withdrawal form from the Wrangler Express or the Registrar's Office. Students are encouraged to consult with instructors prior to dropping a class. Students may not completely withdraw from the college by use of the Web. Students must drop a class or withdraw from college before the official withdrawal date stated in the class schedule. Students who are part of the Armed Forces Reserves may withdraw with a full refund if the withdrawal is due to their being ordered into active duty. A copy of the student's orders must be presented to the Registrar's Office at the time of the withdrawal. For details, please contact the Office of the Registrar. **No longer attending class does not automatically constitute withdrawal from that class, nor does a student's notification to an instructor that the student wishes to be dropped. Failure of a student to complete the drop/withdrawal**

process will result in a grade of “F.” (Source: *Odessa College Catalog of Courses 2012-2013*, page 36)

Learning Resource Center (LRC; Library)

The Library, known as the Learning Resources Center, provides research assistance via the LRC's catalog (print books, videos, e-books) and databases (journal and magazine articles). Research guides covering specific subject areas, tutorials, and the "Ask a Librarian " service

Student Success Center (SCC)

Located in the LRC, the Student Success Center (SSC) provides assistance to students in meeting their academic and career goals. We strive to provide new and updated resources and services at no charge to OC students. Academic support services include tutoring, study skills training, workshops, and the mentoring program. Tutoring is available for a variety of subjects including college mathematics, English, government, history, speech, chemistry, biology, and all developmental coursework. Appointments are preferred, but walk-ins will be served as soon as possible. Smarthinking online tutoring is also available. All computers in the center have Internet access, Microsoft Office, and software resources to assist OC students in improving their reading, writing and mathematical skills. The center also offers special assistance to students preparing for the THEA/COMPASS test. Computer lab assistants are available to assist students with student email, Blackboard, OC portal, Course Compass and more. For more information or to make an appointment, please call 432-335-6673 or visit www.odessa.edu/dept/ssc/ (Source: *Odessa College Catalog of Courses 2012-2013*, page 54)

Learning Resource Center (LRC; Library)

The Library, known as the Learning Resources Center, provides research assistance via the LRC's catalog (print books, videos, e-books) and databases (journal and magazine articles). Research guides covering specific subject areas, tutorials, and the "Ask a Librarian " service provide additional help.

Student Success Center (SCC)

Located in the LRC, the Student Success Center (SSC) provides assistance to students in meeting their academic and career goals. We strive to provide new and updated resources and services at no charge to OC students. Academic support services include tutoring, study skills training, workshops, and the mentoring program. Tutoring is available for a variety of subjects including college mathematics, English, government, history, speech, chemistry, biology, and all developmental coursework. Appointments are preferred, but walk-ins will be served as soon as possible. Smarthinking online tutoring is also available. All computers in the center have Internet access, Microsoft Office, and software resources to assist OC students in improving their reading, writing and mathematical skills. The center also offers special assistance to students preparing for the THEA/COMPASS test. Computer lab assistants are available to assist students with student email, Blackboard, OC portal, Course Compass and more. For more information or

to make an appointment, please call 432-335-6673 or visit www.odessa.edu/dept/ssc/ (Source: *Odessa College Catalog of Courses 2012-2013, page 54*)

Student E-mail

Please access your Odessa College Student E-mail, by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **Correspondence will be submitted using your Odessa College email as an alternative method to contact you with information regarding this course.**

Technical Support

For Blackboard username and password help and for help accessing your online course availability and student email account contact the Student Success Center at 432-335-6878 or online at https://www.odessa.edu/dept/ssc/helpdesk_form.htm.

Expectations for Engagement – Face to Face Learning

To help make the learning experience fulfilling and rewarding, the following Expectations for Engagement provide the parameters for reasonable engagement between students and instructors for the learning environment. Students and instructors are welcome to exceed these requirements.

Reasonable Expectations of Engagement for Instructors

1. As an instructor, I understand the importance of clear, timely communication with my students. In order to maintain sufficient communication, I will
 - provided my contact information at the beginning of the syllabus;
 - respond to all messages in a timely manner through telephone, email, or next classroom contact; and,

Engagement provide the parameters for reasonable engagement between students and instructors for the learning environment. Students and instructors are welcome to exceed these requirements.

Reasonable Expectations of Engagement for Instructors

2. As an instructor, I understand the importance of clear, timely communication with my students. In order to maintain sufficient communication, I will
 - provided my contact information at the beginning of the syllabus;
 - respond to all messages in a timely manner through telephone, email, or next classroom contact; and,
 - notify students of any extended times that I will be unavailable and provide them with alternative contact information (for me or for my supervisor) in case of emergencies during the time I'm unavailable.
3. As an instructor, I understand that my students will work to the best of their abilities to fulfill the course requirements. In order to help them in this area, I will
 - provide clear information about grading policies and assignment requirements in the course syllabus, and

- communicate any changes to assignments and/or to the course calendar to students as quickly as possible.
4. As an instructor, I understand that I need to provide regular, timely feedback to students about their performance in the course. To keep students informed about their progress, I will
 - return classroom activities and homework within one week of the due date and
 - provide grades for major assignments within 2 weeks of the due date or at least 3 days before the next major assignment is due, whichever comes first.
 - notify students of any extended times that I will be unavailable and provide them with alternative contact information (for me or for my supervisor) in case of emergencies during the time I'm unavailable.
 5. As an instructor, I understand that my students will work to the best of their abilities to fulfill the course requirements. In order to help them in this area, I will
 - provide clear information about grading policies and assignment requirements in the course syllabus, and
 - communicate any changes to assignments and/or to the course calendar to students as quickly as possible.
 6. As an instructor, I understand that I need to provide regular, timely feedback to students about their performance in the course. To keep students informed about their progress, I will
 - return classroom activities and homework within one week of the due date and
 - provide grades for major assignments within 2 weeks of the due date or at least 3 days before the next major assignment is due, whichever comes first.

Reasonable Expectations of Engagement for Students

1. As a student, I understand that I am responsible for keeping up with the course. To help with this, I will
 - attend the course regularly and line up alternative transportation in case my primary means of transportation is unavailable;
 - recognize that the college provides free wi-fi, computer labs, and library resources during regular campus hours to help me with completing my assignments; and,
 - understand that my instructor does not have to accept my technical issues as a legitimate reason for late or missing work if my personal computer equipment or internet service is unreliable.
2. As a student, I understand that it is my responsibility to communicate quickly with the instructor any issue or emergency that will impact my involvement with or performance in the class. This includes, but is not limited to,
 - missing class when a major test is planned or a major assignment is due;
 - having trouble submitting assignments;
 - dealing with a traumatic personal event; and,

- having my work or childcare schedule changed so that my classroom attendance is affected.
3. As a student, I understand that it is my responsibility to understand course material and requirements and to keep up with the course calendar. While my instructor is available for help and clarification, I will
- seek out help from my instructor and/or from tutors;
 - ask questions if I don't understand; and,
 - attend class regularly to keep up with assignments and announcements.

Institutional Calendar Spring 2013

College Business offices are closed from Dec 21 (Fri. at 1pm) - Jan 6 (Sun.)

FALL & SPRING BUSINESS HOURS:

Wrangler Express Center: M-Th: 7:30 am-7 pm; Fri: 7:30 am-5 pm; Sat: 9 am-noon

Other offices: M-Th: 8 am-5:30 pm; Fri: 8 am-1 pm

SUMMER BUSINESS HOURS

Wrangler Express Center: (beginning May 14) M-Th: 7:30 am-7 pm; Fri: 8 am-5 pm; Closed Saturdays

(beginning Aug 3, Wrangler Express will also be open 9 am-noon on Saturdays)

Other offices: May 20-Aug 17 (M-Th: 7:30 am-5:30 pm; closed Fridays)

Registration:

On the Web (5 am to Midnight, 7 days a week).....Nov 12-Jan 21

In Person (See Business Hours Above).....Nov 12-Jan 18

***REGISTRATION PAYMENT DEADLINE

* For students registered who register prior to Jan 7.....Payment is DUE Jan 7 (Mon)

* For students who register on or after Jan 7.....Due on Day of Registration

Holiday (Martin Luther King Day - Offices closed except for Wrangler Express)..... Jan 21 (Mon)

Classes Begin.....Jan 22(Tue)

Late Registration & Schedule Changes (Add/Drop):

On the Web (5 am to Midnight, 7 days a week)..... Jan 22-23 (Tue-Wed)

In Person (See Business Hours Above)..... Jan 22-23 (Tues-Wed)

** Late Registration & Add/Drop Payment Deadline..... Due on Day of

Registration

Census Day.....Feb 6 (Wed)

Deadline for Spring Degree Application..... Mar 20 (Wed)

First Eight Weeks End.....Mar 22 (Fri)

Spring Break (Offices Closed – No Classes).....Mar 11-16 (Mon-Sat)

Second Eight Weeks Begin.....Mar 25 (Mon)

Holiday (Good Friday).....Mar 29 (Fri)

Last Day to Drop or Withdraw with a "W" (full semester length courses).....Apr 16 (Tues)

Student Evaluation of Instruction Survey Available Online..... April 28-May 4

Last Day to Drop or Withdraw with a "W" (2nd eight week courses).....Apr 30 (Tues)

Last Class Day..... May 11 (Sat)

Final Exams..... May 13-16 (Mon-Thurs)

Spring Graduation..... May 17 (Fri)

Grading Policy

Please understand that this is a required course for the OSHT program in order to prepare you for the real world. Quality work and active participation is expected and not to be negotiated. As a general policy, grades will be taken in class. Any written assignments or tests will be graded outside of class. You can expect feedback on assignments within a week's time.

Grade inquiry Policy

It is the responsibility of the individual taking this course to maintain accurate track of assignment submissions and grades. There will be opportunities during the semester to meet with the instructor to discuss your academic progress. Contact the instructor to schedule an appointment. Class time will not be used for grade inquiries. All grades are final.

Communication Plan

The best way to communicate with the course instructor is via email through Blackboard. Also, check in Blackboard regularly for announcements, including any changes in the course schedule due to Instructor illness or conference attendance. Appointments with the instructor may also be scheduled.

Incomplete Policy

An 'Incomplete' grade may be given only if:

1. The student has passed all completed work
 2. If he/she has completed a minimum of 75% of the required coursework. A grade of an "I" will only be assigned when the conditions for completions have been discussed and agreed upon by the instructor and the student.
-