Name of Class:	College Physics 1		
Catalog/State Course #:	10806143		
Instructor Name:	B. Staats, MS Science Department Chair	**Office:**	D105 (Appleton campus)
Email:	staats@fvtc.edu	**Phone:**	(920) 993-5298
Office Hours:	Tuesday: 11:30am-12:20pm (D105) Wednesday: 10:30am-12:20pm (D105) Thursday: 12:30pm-2:20pm (D105)		
Class Number:	82122	**Credits:**	3
Day(s) of Week:	Monday: 5:30pm-9:20pm		**During my office hours, I will be available to answer phone calls, return voicemails, reply to emails, work with students, etc.
Start/End Dates:	8/26/19 – 12/16/19	**Weeks:**	17
Location:	Monday: D107		
Textbook:	"College Physics", Serway & Vuille, Eleventh Edition		
Supplies Needed:	Textbook; Curriculum Manual; Scientific Calculator; Notebook and Pencil(s). NO GRAPHING CALCULATORS ARE ALLOWED IN CLASS OR ON EXAMS. These materials are available in the bookstore. You are required to have these materials available for personal use during all classes and personal study time.		

Technical Skills/Equipment Needed

Email, use Internet, use Blackboard, use Logger Pro software (its use will be explained in class), use a scientific calculator.

Blackboard Support: email - online@fvtc.edu Phone: (920) 735-4816

Communication Policy

My preferred method of communication is email. I respond to email messages within 24 hours on Monday through Thursday.

Grading Policy

All work will be graded within one week of submission. Allow an extra week for larger projects. Scores will be posted in the Blackboard gradebook. After posting your final grade, a grade appeal must occur before 21 calendars days have expired.

Grading Scale

A = 90.00 % - 100 %
B = 80.00 % - 89.99 %
C = 70.00 % - 79.99 %
D = 60.00 % - 69.99 %

Breakdown of Grade

(Semester Final Exam = 300 pts)
(Unit Exams = 100 pts)
(Homework = 20 pts)
(Labs = 20 pts)
(Pop Quizzes = 5 pts)

Assignment/Exam Policy/Department

- Homework (HW) worksheets have set due dates (exact due dates are listed in the syllabus schedule) and must be handed in AT THE BEGINNING of the corresponding class period. HW will be Instructor Supplied (IS); therefore, the instructor will print and hand out all HW. If a student knows of an upcoming absence, they may receive the HW early and submit it prior to their departure.

- The student must print labs, unless it is listed as (IS), prior to the start of class. Labs can be found in Blackboard (Bb) within the Curriculum Guide (CG). Failure to have the labs printed on time will result in an automatic 20% deduction. Lab reports are due by the end of the lab period. Labs are setup to provide ample time to complete the activity; therefore, if a lab is not completed by the end of the assigned session, it will be graded accordingly. Students are expected to be in class on time. Late arrivals to lab will receive percent deductions. Makeup lab time is not available. At the end of the semester, the lowest lab grade will be dropped.

- Pop Quizzes (PQ) are unannounced quizzes that will be given at the instructor's discretion. If a PQ is missed (due to an absence), an alternate activity will be provided to that student.

- Unit Tests (UT) dates and the Semester Final (SF) are listed in the syllabus schedule. Makeup Tests WILL NOT be given to students that cannot produce a doctor's permission/excuse for their absence the day of an exam. A makeup test, for excused absences, can be arranged and is to be taken within one week of the original test date. **Any exams that ARE NOT taken on the assigned test date will be in an essay format (no multiple choice).**

- **All written work (assigned problems, labs, & tests) MUST be neat, organized, legible and done in pencil!!** If you forget a pencil, there will always be pencils available to borrow during class time.

- The schedule and syllabus are subject to change at the instructor's discretion.

- All assigned class work, homework, labs, and tests will be finalized and announced in class by the instructor.

- The instructor will have final decision for interpretation and enforcement of all policies and course expectations.

- If class is ever cancelled, make-up work will be posted on Blackboard in the "Announcements" section.

Department/Program Grade Expectations: The course grade is based a semester points total. In order to receive a passing grade, you will need to acquire at least 60.0 % of the course points.

Student Effort: In order to meet the course requirements, you should expect approximately two hours of outside class work for every one hour of effort in the classroom. In lab courses, you can generally expect to spend one hour of outside effort for every two hours in the lab. This will allow you to fully prepare and review necessary course activities.

Content Outline and Schedule - 3 Credits *(see notes at bottom of schedule)*

Dates	Topics/Blackboard Location	Work Due	*Estimated Effort (hrs)
8/26/19 - 8/30/19	• Topic 1	• Introduction / Syllabus • Significant Figures Lab (IS) * • Measurement & Conversions Lecture **	8.0
9/2/19 - 9/6/19	• Topic 1	• **NO CLASS**	8.0
9/9/19 - 9/13/19	• Topic 1	• Measurement Conversions HW due * • Course Requirement & Conduct Agreement (CRCA) due * • Vector Addition Lecture * • Vector Addition Lab (IS) *	8.0
9/16/19 - 9/20/19	• Topic 2	• Vector Addition HW due * • Uniform Accelerated Motion Lecture ** • Graphing Motion Lab (Manual pp. 2.11-2.15) **	8.0
9/23/19 - 9/27/19	• Topic 7	• Uniform Accelerated Motion HW due ** • **Unit Test 1 *** • Discuss Test Results * • Rotational Motion Lecture **	8.0
9/30/19 - 10/4/19	• Topic 3	• Rotational Motion HW due ** • Projectile Motion Lecture ** • Projectile Motion Lab (IS) **	8.0
10/7/19 - 10/11/19	• Topic 4	• Projectile Motion HW due ** • Newton's Second Law Lecture *** • Forces in Equilibrium Lecture ***	8.0
10/14/19 - 10/18/19	• Topic 8	• Newton's Second Law HW due *** • Forces in Equilibrium HW due *** • **Unit Test 2 **** • Discuss Test Results ** • Rotational Equilibrium Lecture ***	8.0
10/21/19 - 10/25/19	• Topic 5	• Rotational Equilibrium HW due *** • Work, Energy, Power Lecture **** • Centripetal Force Lab (Manual pp. 3.11-3.14) ***	8.0
10/28/19 - 11/1/19	• Topic 6	• Work, Energy, Power HW due **** • **Unit Test 3 ***** • Discuss Test Results *** • Impulse & Momentum Lecture ****	8.0
11/4/19 - 11/8/19	• External Topic	• Impulse & Momentum HW due **** • Collisions & Momentum Labs (IS) **** • Mechanical Advantage Lecture **** • Simple Machines Activity (IS) ****	8.0
11/11/19 - 11/15/19	• Topic 11	• Mechanical Advantage HW due **** • **Unit Test 4 ***** • Discuss Test Results **** • Expansion Lecture *****	8.0
11/18/19 - 11/22/19	• Topic 11	• Expansion HW due ***** • Heat Lecture ***** • Linear Expansion Lab (Manual pp. 5.5-5.8) *****	8.0

11/25/19 - 11/29/19	• Topic 10	• Heat HW due ***** • Thermal Properties Lecture ***** • Specific Heat Lab (Manual pp. 5.9-5.12) *****	8.0
12/2/19 - 12/6/19	• Topic 10	• Thermal Properties HW due ***** • Gas Laws Lab (Manual pp. 5.13-5.20) ***** • Review for Unit Test 5 *****	8.0
12/9/19 - 12/13/19	• Review Unit 5	• **Unit Test 5 ***** • Discuss Test Results ***** • Semester Review	8.0
12/16/19 - 12/20/19	• Review all Units	• **SEMESTER FINAL** • **Discuss Exam & Final Course Grade**	8.0 Total = 136

* Times to complete the work for this course are estimates.

Attendance Policy

- Attend and actively participate in classes as scheduled to receive the maximum benefit from your educational experience.
- Plan your schedule so that you can be present for scheduled class sessions and manage your time so that you can complete your assignments and assessments on or before the date they are due.
- If you know you will miss a class session, notify your instructor prior to the absence. Plan ahead to submit assignments or complete assessments that will be due during your absence prior to your absence. (Refer to the learning plans and the syllabus schedule.
- It is your responsibility to contact the instructor as soon as possible after missing a day of class to receive any printed handouts, get an overview of the material covered, or to set-up a time to make-up a test. You can inform me via an email or a phone call. Detailed notes are the responsibility of the student.
- Exceeding a total of eight hours of instruction time will cause the student to be withdrawn from the course.
- A student will also be withdrawn from the course when they are missing 20% of their homework, exams, and/or labs.
- After 60% of the semester is completed, a withdrawal will result in an "F" for the course.

Student Resources/Support: *(**Note:** Underlined items are hyperlinks to the FVTC College resources and/or policies.)*

- **Campus Safety & Security** - Life threatening 911 / Emergency (920) 735-4777 / Non-emergency (920) 735-5691
- **Support Services** - There is a broad network of support services for you at Fox Valley Technical College; see them at this link that takes you to the Help and Resources Tab in Blackboard.
- **Tutoring/Writing Assistance** - The Teaching and Learning Center (TLC) and Write Way are services to assist you with tutoring and writing assistance services; see the For Students tab in Blackboard.
- **Course Withdrawal** - If you choose to withdraw from the course, please contact me and enrollment services to ensure you are aware of the impact to your Academic and Financial Aid GPAs.
- **Equal Opportunity** - Fox Valley Technical College is committed to ensuring equal access to its educational programs and employment opportunities without regard to sex, gender, race, color, national origin, religion, age, disability, gender identity, sexual orientation, genetic characteristics, marital status, or military status.
  - **ADA** - FVTC provides a wide range of supplemental services to ensure reasonable accommodations to the known physical or mental limitations of qualified individuals with disabilities. To obtain more information or request accommodations, contact FVTC's Student Services' Educational Support Center at (920) 735-5679 Voice/TTY.

- **Title IX** - FVTC prohibits all forms of illegal gender and sex-based discrimination, which includes acts of sexual violence, sexual harassment, domestic violence, dating violence, and stalking. To report a Title IX concern, contact Security Services at (920) 735-5691 or (920) 993-5177. **Sexual Misconduct Policy**

Student Conduct

- **Academic and General Codes of Conduct** - Please review this document to understand your rights and responsibilities as a student.
- **Conduct - Student Policies** - Please review these policies to understand your rights and responsibilities as a student. The topics below are covered in these policies.
  - Plagiarism and Academic Conduct - Fox Valley Technical College prohibits all forms of academic dishonesty. Violations are subject to the college conduct process. See the student handbook for more information.
- **Acceptable Use of Computers and Electronic Devices**
  - **All cell phones are expected to be out of sight and turned OFF (no ring, no vibrate, no texting, no exceptions) during all class periods, labs, and tests.** If you do not follow this expectation, you will receive a 20% deduction on the corresponding worksheet or lab assignment for that day. Use of cell phones during a test will result in a score of zero for that test. If you need to be available via your cell phone for an emergency, you will give your phone to the instructor prior to the beginning of class.
  - Laptop computers may not be used without prior approval from your instructor. The use of personal computers when approved is subject to the same appropriate use policy as all FVTC computers as outlined in the student handbook.
  - NO electronic devices are permitted in the classroom, lab, or testing center without instructor permission.

Student Expectations

- It is the intent of your physics instructor to provide a positive, successful learning environment, and opportunities for all students.

- Physics, by its nature, can be an inherently difficult and challenging subject. Many of its topics will require numerous hours of external classroom study in order to acquire proper mastery. Therefore, in order to ensure a successful experience in this course:

Students Will:

- Have the required materials (textbook, curriculum manual, pencil, notebook, and a scientific calculator) available for their personal use during class, study groups, and personal study time
- Acknowledge that Pop Quizzes (which will necessitate access to the required materials) may be administered during any class session. The required materials WILL NOT be provided to the student and WILL NOT be shared amongst classmates during pop quizzes, exams, etc.; therefore, it is your responsibility to always have your required materials available. If you are absent for a Pop Quiz, an alternate quiz will be administered upon your return.
- ALL submitted work should contain solutions that are clear and legible. The student's solutions are expected to model the approaches/strategies which are used in both the lecture and the text. The student acknowledges that unclear, difficult to read, and/or non-lecture modeled work may result in a zero score.
- Seek additional assistance from a tutor, the TLC, and/or your instructor via phone, email or in person as needed.
- NOT exhibit any disrespect, outbursts, and/or disruptions to the educational flow of the classroom. You acknowledge that you will be removed from the classroom with such behavior.
- Discuss any concerns/criticisms about the class (grades, tests, instructor, etc.) with the instructor in private.
- Come to class prepared by having course readings and assignments completed.

- Acknowledge, accept, and honor the official time that the class begins AND finishes; therefore, you will be present in class until the class is adjourned. Students arriving to class late and/or leaving class early will have the missing time recorded and applied to their total amount of allowable absences.
    - The door may be shut when class begins. If so, in order to minimize disruptions, late arrivals will need to wait patiently in the hallway until the class takes a break or a natural break in a presentation/lab arises. Time spent in the hallway will count as missing class time.
- If you are considering to withdraw from the course, please meet with your instructor before officially. (Please note that withdrawals past 60% of course calendar will result in an "F".)
- During class time and study sessions:
    - Pay attention and stay focused on lectures (without disruptive side comments, conversations, etc.)
        - Any type of disruptions (which contradict the Employability Essentials) will result in a course grade points loss.
    - Contribute to class discussions and activities.
    - The student acknowledges that, within a two hour session, there may be no formal breaks. Therefore, if a student needs to leave the room (restroom OR water fountain ONLY), he/she may leave at their own discretion.
    - Ask questions when needed and stay after class for more explanation as needed.
    - Display a positive and mature attitude.
    - Work on assigned homework during class work time. If the assignment is completed before class is adjourned, you may leave class early without penalty (provided that you submit your completed homework for grading).

Laboratory Safety - Students Will:

- Act in a responsible manner at all times in the laboratory.
- Follow all instructions given by the instructor.
- Use good housekeeping practices in the lab.
- Wear eye protection in the laboratory (when instructed to do so).
- Wear a lab coat in the laboratory (when instructed to do so).
- Wear gloves in the laboratory (when instructed to do so).
- Know where the first aid kit and fire extinguisher is located and what you should do in an emergency.
- Know how to get help in an emergency.
- Tie back long hair, remove dangling jewelry, and wear closed toe shoes while in the laboratory.
- Never work alone in the laboratory.
- Never take chemicals, equipment, cultures, or other substances out of the laboratory.
- No eating, drinking, or smoking in the laboratory.
- Exercise care when handling hot objects, boiling water, and electrical equipment.

Course Description

- Presents the applications and theory of basic physics principles. This course emphasizes problem solving, laboratory investigation and applications. Topics include laboratory safety, unit conversion and analysis, kinematics, dynamics, work, energy, power, temperature and heat.

Prerequisites

- College Technical Math 1 (10804115) or College Technical Math 1A (10804113) or College Algebra and Trigonometry w Apps (10804197)

Course Competencies: All students should be competent in the following knowledge, skills, and behaviors by the end of this course.

- Demonstrate safety procedures and protocols in the laboratory.
- Solve problems involving unit conversions and unit analysis.
- Apply the concepts of kinematics.
- Apply the laws of dynamics.
- Apply the concepts of work, energy, and power.
- Apply the principle of conservation of momentum.
- Assess the thermal properties of matter.
- Apply the principles of heat transfer.
- Analyze thermodynamics of a system.

FVTC Vision

A catalyst in engaging partners to bring innovative educational solutions to individuals, employers, and communities – transforming challenges into opportunities.

Employability Essentials: FVTC works closely with area employers to ensure our students are learning the skills needed in today's competitive workplace. In addition to technical skills, you will also learn and practice the following Employability Essentials—the skills and behaviors employers want in the workplace.

- Adapt to Change
- Think Critically and Creatively
- Work Collaboratively
- Communicate Effectively and Respectfully
- Act Responsibly

EMPLOYABILITY ESSENTIALS	PROFICIENT (Points Awarded)	INSUFFICIENT (Points Not Awarded)
Adapt to Change: Anticipate changes and positively respond to them	• You will show mastery of concepts via variations of homework, labs, and lecture	• Inability to show mastery will result in proportionately lower grades
Think Critically & Creatively: Use Critical Thinking and Creativity to solve problems, make decisions, etc.	• For Each Homework Problem: 1. If applicable, show a table correctly identifying the measurements and associated equation symbols 2. If applicable, show the correct free-body diagram, schematic, etc. 3. If applicable, show the correct equations to be used 4. If applicable, show the equation variables replaced by the correct measurements 5. (A total of 1/2 credit provided for #'s 1-4) 6. Show the correct answer including the correct number of significant figures (A total of 1/2 credit provided for #6 ONLY if #'s 1-4 are provided) • For Each Unit Test Question: 1. If applicable, show a table correctly identifying the measurements and associated equation symbols 2. If applicable, show the correct free-body diagram, schematic, etc. 3. If applicable, show the correct equations to be used 4. If applicable, show the equation variables replaced by the correct measurements 5. (A total of 1/3 credit provided for #'s 1-4) 6. Show the correct answer including the correct number of significant figures (A total of 2/3 credit provided for #6 ONLY if #'s 1-4 are provided) **The more organized, clear, and concise is your work, the more points you can be rewarded.	• For Each Homework Problem: 1. For each part listed under PROFICIENT, points will not be administered if it is either left blank or completed incorrectly. • For Each Unit Test Question: 1. For each part listed under PROFICIENT, points will not be administered if it is either left blank or completed incorrectly.

Work Collaboratively: Work with others to complete tasks, solve problems, etc.	• For each group activity: 1. Submit individual lab reports 2. Leave the classroom at the same time as your lab group 3. Students need to work well as contributing team members.	• Refusal to work with or be a productive and active group learner will result in a 50% or greater deduction
Communicate Effectively & Respectfully: Apply appropriate writing, speaking and listening skills across various settings to engage diverse audiences	• All written work will be completed in pencil • All submitted work should contain solutions that are clear and legible. The student's solutions are expected to model the approaches/strategies that are used in both the lecture and the text. • Do not exhibit any disrespect, outbursts, and/or disruptions to the educational flow of the classroom.	• Non-pencil completed work will receive a 10% deduction • Unclear, difficult to read, and/or non-lecture modeled work may result in a zero score. • Students exhibiting disrespectful outbursts and/or disruptions will be removed from the classroom and will receive a zero for that day's work
Act Responsibly: Apply ethical standards in both personal & professional behavior	• Have the required materials (textbook, paperwork, pencil, notebook, and a scientific calculator) available for their personal use during class, study groups, and personal study time • For Each Homework (HW) Problem Set: 1. It is due at the beginning of the corresponding class. No Exceptions (including absences). 2. If you are absent, please submit your HW (prior to the start of class) via one of the following: a. Scan and send via email b. United States Postal Service c. Physically dropped off in my office d. Timeliness will be determined by time stamps and postmarks • Labs, if applicable, will be printed prior to the start of class • You are expected to be on time to all class sessions	• Required materials will not be provided by the instructor. Lack of materials will result in inability to complete assigned tasks. • For Each Homework (HW) Problem Set: 1. If it is submitted after the start of class, the following deductions occur: a. Within the first 12 hrs receives a 30% deduction b. Within 12 – 23 hrs late receives a 50% deduction c. Within 24 – 47 hrs late receives a 70% deduction d. Later than 48+ hrs receives zero credit • If labs are not printed prior to the start of class, a 20% deduction for that lab is applied • If you arrive late: 1. Time absent (for lecture & labs) is counted against the 8 hr maximum 2. In addition, for labs: a. 5 – 15 minutes late = -10% b. 16-30 minutes late = -30% c. 31-45 minutes late = -50% d. >46 minutes late = zero credit

Amendment to Syllabus

Any changes to the information in the syllabus affecting the course, or course content will be announced by the instructor. Changes to the course policies may occur due to extenuating circumstances.

Addendum

College Physics 1

COURSE REQUIREMENTS & CONDUCT AGREEMENT (CRCA)

I, _____ (print name), **have read, understand, and agree to abide by** the course requirements, conduct expectations, and laboratory safety covered in this course syllabus. I recognize that my success or failure, in this course, securely rests upon my commitment to upholding the course syllabus' expectations.

I also understand that my instructor will retain all of my exams for only twenty-one calendar days after posting my final course grade. After that date, all course related documents will be shredded. Therefore, any grade appeals must occur before the twenty-one days have expired.

Signed _____Date_____