

Summer Enrichment Handbook

June 23- July 24,

2014

This document contains information regarding the University of Pittsburgh's INVESTING NOW Summer Enrichment Program.

**INVESTING
NOW**

All students should bring the following supplies:

- 4 pocket folders (1 per class)
- Writing utensils (pencils and pens)
- A scientific calculator
- Loose leaf paper
- 1 thumb drive

Summer Session Dates: June 23-July 24, 2014

Monday	Tuesday	Wednesday	Thursday	Friday
June 23 First day of classes	June 24	June 25	June 26	June 27 No classes
June 30	July 1	July 2	July 3	July 4 Fourth of July No classes
July 7	July 8	July 9	July 10	July 11 No classes
July 14	July 15	July 16	July 17	July 18 No classes
July 21	July 22	July 23	July 24 Last day of classes	July 25 No classes

SUMMER ENRICHMENT PROGRAM SUMMARY

The primary goal of the INVESTING NOW summer enrichment session is to provide an experience that is interactive and educationally enriching. Each course is designed to enhance specific skills and abilities that promote students' academic success. Pre-ninth, pre-tenth and pre-eleventh grade students take a mathematics class, an SAT writing class and a science course. In addition, they participate in engineering projects.

Course Descriptions

Mathematics

Students participate in interactive classes previewing the key mathematics concepts of their next math course. Class material addresses topics typically covered in the following subjects: Algebra I, Geometry, Algebra II, Pre-Calculus and Calculus. These classes strengthen students' skills and enhance their ability to solve mathematical problems.

Science

Classes in biology, chemistry and physics introduce students to selected topics for their next science course. Students learn fundamental science concepts and engage in laboratory experiences to enhance their understanding of, and interest in, the subject area studied.

Writing/SAT Prep

This course will provide an introduction to the SAT with a focus on the Critical Reading and Writing Skills section. Students will learn and review grammar skills relevant to the critical reading section, and practice reading and writing frequently. Students will utilize the resources on the College Board website. Additionally, students will practice sample questions, with special attention given to questions requiring critical thinking and reasoning. This course will build SAT test-taking confidence by exposing students to SAT practice tests and careful skill analysis.

Engineering Projects

This year each grade will remain with the same hands-on project and facilitator for two hours each day throughout the five weeks. This will allow for a more in-depth exposure to a specific field of engineering. Final projects will be presented during the last class on Thursday, July 24, 2014.

The 9th grade students will participate in the LEGO Robotics Project, which will help students to explore programming, logic, and mathematical concepts through instruction and friendly competition.

The 10th grade students will be introduced to tissue engineering, a field of Bioengineering. Tissue engineering, broadly defined, is the development and manipulation of laboratory-grown molecules, cells, tissues, or organs to replace or support the function of defective or injured body parts.

The 11th grade students will study aspects of energy systems and solutions. The projects include both basic science fundamentals and engineering problem solving skills. Students will be introduced to design using CAD, use 3-D printing to design and then manufacture and test the bending strength of their own 3-D designed structure, measure the efficiency of wind turbines each student designs, and work with solar panels, motors, electric circuits and soldering. Students will gain some understanding of the importance of energy and how the choices they make can affect energy expenses and the supply of non-renewable resources.

Algebra I Course Overview and Expectations

Investing NOW: June 23 – July 24

Instructor: Ashley Slaney

Course: Algebra I

Students should bring the following items with them to class each day.

- Paper, Pens, Pencils, Notebook
- Scientific or graphing calculators are highly recommended

During this course, students will

1. Be introduced to Algebra, variable, exponents, and expressions
2. Use operation with integers and polynomials
3. Solve, write, and graph linear equations and inequalities
4. Solve systems of linear equations algebraically
5. Solve quadratic equations by factoring, graphing and the quadratic formula
6. Simplify and evaluate rational and exponential expressions

Course Requirements

- Classwork: note taking, guided practice, explorations, discussions
- Homework: practice, projects, and review, **Assessed after every class section**
- Notebooks: Organize and track classwork, homework, and assignments,
- Other Assessments: homework quizzes, final exam, and class presentations

Profile of a Successful Student:

A successful student will attend class regularly, be on time, and bring all required materials. This student will complete all assignments on time and ask questions when help is needed. This student will study regularly and participate actively.

Algebra II Course Overview and Expectations

Investing NOW: June 23 – July 24

Instructor: Ashley Slaney
Course: Algebra II

Students should bring the following items with them to class each day.

- Paper, Pens, Pencils, Notebook
- Scientific or graphing calculators are highly recommended

During this course, students will

- Modeling linear functions and systems
- Solving linear functions and systems
- Algebraic transformations and inverse variation

Course Requirements

- Classwork: note taking, guided practice, explorations, discussions
- Homework: practice, projects, and review, **Assessed after every class section**
- Notebooks: Organize and track classwork, homework, and assignments,
- Other Assessments: homework quizzes, final exam, and class presentations

Profile of a Successful Student:

A successful student will attend class regularly, be on time, and bring all required materials. This student will complete all assignments on time and ask questions when help is needed. This student will study regularly and participate actively.

ELEMENTARY FUNCTIONS
INVESTING NOW SUMMER 2014

Instructor: Melanie Williams

Course Goal: Students will be introduced to the topics they will cover in Elementary Functions during their first semester.

Objectives: Topics covered include: Algebraic, Exponential, and Trigonometric Functions.

Attendance: All students must attend classes regularly and promptly. Students must report absences to the Investing Now office before 8:30 am. Students cannot miss more than three days of the summer session. Students are required to attend a thirty minute detention for every class in which they are tardy.

Materials: Binder (A binder is preferred because of the amount of handouts students will receive), paper, calculator and pencils.

Grading: Students will be graded on their classwork, homework, assessments, and binder each worth 25%. Students will have homework two or three times a week. Students are expected to keep their handouts neatly organized in their binder (we will have a system for this). They will have three or four assessments during the summer.

Course at a Glance:

Week 1: Algebra Review (solving complex linear equations and inequalities, and quadratic equations)

Week 2: Algebraic Functions

Week 3: Exponential and Logarithmic Functions

Week 4: Trigonometric Functions

Week 5: Review

GEOMETRY

INVESTING NOW SUMMER 2014

Instructor: Melanie Williams

Course Goal: Students will be introduced to the topics they will cover in Geometry during their first semester.

Objectives: Topics covered include: Angle measurements, Conjectures, Parallel and Perpendicular Lines, and Triangle Relationships.

Attendance: All students must attend classes regularly and promptly. Students must report absences to the Investing Now office before 8:30 am. Students cannot miss more than three days of the summer session. Students are required to attend a thirty minute detention for every class in which they are tardy.

Materials: Binder (a binder is preferred because of the amount of handouts students will receive), paper, calculator and pencils.

Grading: Students will be graded on their classwork, homework, assessments, and binder each worth 25%. Students will have homework two or three times a week. Students are expected to keep their handouts neatly organized in their binder (we will have a system for this). They will have three or four assessments during the summer.

Course at a Glance:

Week 1: Properties of Points, Lines, Planes, Rays and Line Segments

Week 2: Postulates, Theorems, Definitions, and Properties Can Be Used to Justify Mathematical Reasoning

Week 3: Parallel and Perpendicular Lines

Week 4: Triangle Relationships

Week 5: Review

Calculus: A Primer
Investing Now, Summer 2014

Course:

Lecture: MTWTh, 10-11 AM, Ben 226

Instructor: Michael Kristufek

Office: Benedum 629

Email: mik54@pitt.edu

Office Hours: MW 1:00{2:00 PM, and by appointment }

Prerequisites: You are expected to be proficient with Algebra (add/subtract, multiply/divide, order of operations, FOIL method, etc.).

Text: *Calculus. Early Transcendental Functions.* Ron Larson, Robert Hostetler, Fifth Edition, ISBN-13: 978-0-538-73550-6.

Course Description: This is a pre-first course in calculus. I have twenty days to guide you through an exploration of what will most likely be your first advanced mathematics exposure. As an engineer, I view mathematics as a tool and a language; thus, my approach to this course will be motivated from a practical standpoint. Often times it feels that we do math for the sake of math, so our goal is to find meaning and value in our exploration of calculus. But I must warn you: understanding calculus requires solid algebra and geometry skills.

Grading: There will be a short homework and a brief quiz almost every day. Feel free to collaborate on homework, but don't just copy—do us both the favor and be honest. There will be no exams, so your course grade is based on your homework, quizzes, and participation. You will NOT be graded on getting the correct answer, instead you'll be graded on how you arrived at your answer. You are expected to complete each homework assignment outside of the classroom, and it is due at the beginning of each class.

Calculator: You are permitted to use calculators for all homework. You will also be permitted to use calculators on all quizzes that require numerical evaluation. If a quiz has no numerical calculation, then you won't be permitted a calculator.

Expectations: I have one classroom rule: respect. I prefer a less formal learning environment, but it must be orderly. If you're respectful, it covers everything else: no cell phone use; no eating; no sleeping; no cheating; if I'm speaking, you're not.

Course Outline: Here is a basic idea of what we'll explore.

I. Review of Elementary Functions

- i. Polynomials
- ii. Rationals
- iii. Transcendentals
 - a. Exponentials
 - b. Logarithms
 - c. Radicals
 - d. Absolute Value

II. Limits

- i. Finding limits
 - a. Graphical Methods
 - b. Analytical Methods

III. Differentiation

- i. Tangent Line Problem and the Derivative
- ii. Differentiation Rules
- iii. Implicit Differentiation
 - a. Related Rates
- iv. Extrema
 - a. Extreme Value Theorem

IV. Integration

- i. Anti-derivatives/Indefinite Integral
 - a. Basic Rules of Integration
- ii. Infinite Sums
- iii. Approximating Areas
- iv. Definite Integral
 - a. Riemann Sum
- v. Fundamental Theorem of Calculus
- vi. Integration Tricks

Intro to Biology
INVESTING NOW Summer Enrichment Session 2014
Instructor: Mr. McMurray

All men by nature desire knowledge.
We are what we repeatedly do. Excellence, then, is not an act, but a habit.
~Aristotle~

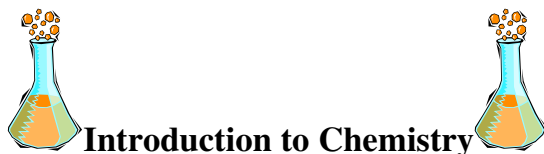
Class Times: Class will take place every Monday, Tuesday, Wednesday and Thursday
Section 1: 10:00 – 11:00AM
Section 2: 11:00- 12:00PM

Course Goals: This course is dedicated to helping students assemble a strong foundation of Biology. It aims to reinforce student's current understanding of important principles in the study of life, as well as expose them to new concepts that will give students a deeper understanding of how biology impacts their daily lives. In successfully completing the course, students will develop an understanding of the fundamentals, scientific process skills, utilization of laboratory techniques and become acquainted with biotechnological innovations that contribute to improving our health.

Course Objectives: To develop a fundamental understanding of biological concepts: Characteristics of Life, Biotechnology, Cellular Organization, Membranes & Transport, DNA, Reproduction of Cells, Chromosomal Basis of Hereditary

Preliminary Schedule

Week	Dates	Topics
1	June 23 – June 26	Introduction to Macromolecules
2	June 30 – July 3	Life/The Cell/ Organelles
3	July 7 – July 10	DNA Structure and Function
4	July 14 – July 17	Genetics
5	July 21 – July 24	Final and Projects



Introduction to Chemistry
INVESTING NOW Summer Enrichment Session 2014
Instructor: Jessica Maiers

Email: jmaiers1@pghboe.net

Class Information

Time: 9:00-10:00 or 10:00-11:00

Location: G28 Benedum Hall

Course Objective

The objective of this course is to introduce students to chemistry and to prepare them to study chemistry in the fall as sophomores. This course will not only introduce students to the periodic table and to the equipment that is used in the chemistry lab but over the course of the summer students will also be introduced to the basics behind some of the more difficult concepts in chemistry. This will give them a basic understanding which will put them ahead when their class begins to delve deeper into the concepts in their year-long chemistry courses. The students will also get an opportunity to use some of the laboratory equipment and will finish the summer with a chance to do a lab on the conservation of mass and write a report describing their results.

The activities and labs are designed to be hands on and to show the students the relationships between the chemistry they are learning in class and their everyday lives. Students will be encouraged to ask questions, to explore how and why things happen and to work with their fellow students to better understand the world around them. Students will also receive resources that will help them prepare and study for chemistry beyond the summer program.

Attendance

Attendance is mandatory for all class sessions, especially on laboratory days. Students may miss no more than 3 days over the course of the summer program. Attendance will be recorded on a daily basis. Students are also expected to be on time to class. Excessive tardies will not be permitted, especially on days of labs and group activities.

Materials

Each day for class students will need a writing utensil and a binder to keep their work in. Calculators will be needed on most days but will be available if students do not have their own calculator to bring.

Class Format

The class will be presented using a combination of lectures, group activities, lab experiments, independent work and student-led classes. Lectures will be discussion-based and students will be expected to participate and present their work. Activities and labs will be designed to allow the students to see chemistry first hand while getting an opportunity to familiarize themselves with a chemistry lab.

Grading

Assignment	Point Value
Classwork	160 (20 per assignment)
Homework	60
Midterm Exam	50
Final Exam	50
Lab Experiments	90 (30 per lab)
Group Activities	100 (25 per activity)
Participation	90 (5 per non-test day)

Classwork

Classwork grade will be based on the students working on the problems/questions in class and sharing their results with the class. Classwork will be collected and graded so that we can discuss the problems the next day when the students get their papers back. Grades will be based on the attempt made and not solely on the correctness of the answers.

Homework

Homework assignments will be given based on the amount of material covered during class. Most assignments will require that students complete a task (bring in a marker to test for lab, find their mass in kg, etc.). Homework will be due the day after it is given.

Lab Experiments

Experiment grades will be based on how well the students work with their group, follow the directions of the lab and clean up their area. Their grade will also be based on the calculations and questions for the lab which will be turned in to be graded.

Group Activities

Activities grades will be based on how well the students work with their group and participate. Students will also complete a written assignment to demonstrate their understanding of the concept demonstrated.

Participation

Students will be expected to participate in putting problems on the board, answering and asking questions. Students will lose participation points for having their phones out in class, not assisting their group in group activities or not attempting classwork.

Physics: A Primer
Investing Now, Summer 2014

Course:

Lecture: MTWTh, 11 AM-noon, Ben G-28

Instructor: Michael Kristufek

Office: Benedum 629

Email: mik54@pitt.edu

Office Hours: MW 1:00{2:00 PM, and by appointment }

Prerequisites: You are expected to be proficient with Algebra (add/subtract, multiply/divide, order of operations, FOIL method, etc.).

Text: *Physics. Principles with Application* Douglas Giancoli, Sixth Edition, ISBN-13: 978-0-321-73699-4.

Course Description: This is intended as an algebra-based, first exposure to physics. I have twenty days to guide you through an exploration of what will most likely be your first advanced science course. Physics is the foundation for nearly everything in physical science and engineering, so my approach to this course will be motivated from a practical standpoint. Much of what will be explored in this course was first discovered at the same time as the math necessary to describe the problems. While we are not going to delve deeply into the 'mysteries' of differential calculus, we must acknowledge how inseparable math is from physics: we're going to do some math along the way, so be prepared.

Grading: There will be a short homework and a brief quiz almost every day. Feel free to collaborate on homework, but don't just copy—do us both the favor and be honest. There will be no exams, so your course grade is based on your homework, quizzes, and participation. You will NOT be graded on getting the correct answer, instead you'll be graded on how you arrived at your answer. You are expected to complete each homework assignment outside of the classroom, and it is due at the beginning of each class.

Calculator: You are permitted to use calculators for all homework. You will also be permitted to use calculators on all quizzes that require numerical evaluation. If a quiz has no numerical calculation, then you won't be permitted a calculator.

Expectations: I have one classroom rule: respect. I prefer a less formal learning environment, but it must be orderly. If you're respectful, it covers everything else: no cell phone use; no eating; no sleeping; no cheating; if I'm speaking, you're not.

Course Outline: Here is a basic idea of what we'll explore.

I. Introduction

- i. What is science?
 - a. Models
 - b. Theories
 - c. Laws
- ii. Measurement and Experiment
 - a. Precision
 - b. Accuracy
- iii. Units
 - a. Imperial Units (Boo!)
 - b. Metric Units (Yay!)
 - c. SI Units
- iv. Coordinate Systems and Reference Frames
- v. Scales and Vectors

II. Rectilinear Kinematics

- i. Vocabulary
 - a. Position/Displacement
 - b. Speed/Velocity
 - c. Acceleration
- ii. Graphical Analysis
- iii. Falling Objects

III. Rectilinear Statics/Dynamics

- i. Newton's Laws
- ii. Forces
- iii. Free Body Diagrams

IV. Work and Energy

- i. Conservation
- ii. Types of Energy
 - a. Potential
 - b. Kinetic
 - c. Other

V. Rectilinear Momentum

- i. Newton's Laws (again)
- ii. Impulse

SAT Prep
INVESTING NOW
Summer Session Enrichment 2014

Instructor: Ms. Alyse Alexander

Email: alysealexander@gmail.com

Course Description: This course approaches the critical reading and the writing sections of the SAT test. You will learn and review grammar skills relevant to the critical reading section, and you will also practice reading and writing frequently. You will practice sample questions, with special attention given to questions requiring critical thinking and reasoning. The goals of this course include building SAT test-taking confidence, assisting you in reaching your full potential through careful skill analysis, and exposing you to SAT practice tests.

Attendance: Students are expected to report to class promptly every day. All materials—readings, notebooks, and writing utensils must be brought to every class. Chronic lateness WILL NOT be tolerated; consequences will follow. Students are not permitted to miss more than three classes and every two tardies will be considered an absence.

Materials:

- Writing utensils
- A small, three-ring binder or folder for keeping schedules of upcoming work, hand-outs, essays, and class notes
- Loose-leaf paper for note-taking/in-class writing assignments

Grading Policies: Students will be assessed by homework, quizzes, participation, and formal and informal writing assignments. All assignments are to be handed in at the beginning of class on the day that they are due. Late essays or major assignments will suffer a grade penalty unless an extension has been granted prior to the due date. If you foresee a problem with a due date, approach me BEFORE the due date to request an extension. Extensions will be granted on a case by case basis. Homework assignments will ask you to practice essential skills for the SAT test. Your final grade will be an evaluation of your overall course work, including essays and revisions, quizzes, informal writing, and class participation. In determining your overall grade, I will focus on your overall effort, improvement, and skill throughout the course.

Participation: Students are expected to come to class prepared (i.e., having done the assignment) and to participate fully in all activities—discussions, group work, etc. Students' participation in class should be thoughtful and respectful of others. Disrespectful behavior in class will not be tolerated.

Evaluation:

Class participation	20%
Essays	20%
Homework	40%
Quizzes	20%

Course Schedule:

Week 1: Structure of the current SAT vs. Redesigned SAT

- How to get a better score on the SAT
- How to do your best on the SAT
- Critical Reading practice
- Sentence completion
- Passage based reading
- Nouns, verbs, adverbs, conjunctions, pronouns, adjectives, prepositions and interjections review

Week 2: Grammar Review

- Passage based reading
- Root words review/Words with different meanings review
- Vocab list 1
- Grammar rules
- Writing portion of SAT
- Improving Sentences section

Week 3:

- Vocab list test
- Evidence-Based Reading and Writing (Redesigned SAT)
- Identifying sentence errors
- Improving paragraph practice

Week 4:

- Vocab list 2
- New Essay (Switch and critique with partner) /Grammar
- Go through appropriate sections test 1

Week 5:

- Vocab list 2 test
- Go over appropriate sections test 1 and 2
- Practice test
- Final essay

*Please note that the course schedule is subject to change upon student need and/or instructor's discretion.

**Investing Now
Writing and SAT Prep
Summer 2014
Ms. Robinson**

Assignments

Week of June 23-26: Introduction to the new SAT

1. Sign in or create a new account with collegeboard.com. **If utilized properly, this site can be a great resource for you in the coming years. It has a lot of information about the SAT, AP tests, and college planning.** You will be using it regularly for this class.
2. How is the new SAT different from that of years past?
3. Complete an SAT practice test online (I will schedule time in a computer lab).
4. **Reflection:** In a thoughtful and complete paragraph, describe the SAT, and what you can expect (how is the test organized, what content areas are tested, how long is it, how is it graded, etc.). Identify an area(s) in which you might need to strengthen your understanding or skills.

Week of June 30 – July 3: Critical reading vs. Evidence based reading

1. Evidence based reading and writing – What is it? What is expected of the test taker?
2. Complete SAT **passage-based** reading practice questions on collegeboard.com
3. Key SAT Vocabulary Lesson 1
4. Complete Khan Academy tutorial

Week of July 7-10: Critical reading

1. Key SAT Vocabulary Lesson 2
2. SAT Practice
3. Complete Khan Academy tutorial
4. **Reflection:** Which lessons in the evidence based reading section were most difficult for you and why?

Week of July 14-17: Writing

1. Key SAT Vocabulary Lesson 3
2. Read “**Map the SAT Essay Assignment**” and answer 5 accompanying questions
3. Complete a timed writing prompt in class. Include at least 3 vocabulary words.
4. **Reflection:** How does the SAT Scoring Guide describe an essay that demonstrates *clear and consistent mastery* (i.e. a score of 6)? Which of these elements of mastery will prove most challenging for you?

Week of July 21-24: Writing

1. Key SAT Vocabulary Lesson 4
2. Complete SAT **identifying sentence errors** practice on collegeboard.com
3. Complete SAT **improving sentences** and **improving paragraphs** practice on collegeboard.com
4. Complete a timed writing prompt in class. Include at least 3 vocabulary words.

Evaluations

Students will be evaluated weekly and at the end of the program. Criteria for each designation will be as follows:

Outstanding – You go above and beyond. You participate in class with insightful comments and probing questions. You exhibit consistent effort and growth on assignments, both in and out of class. You take your final revision seriously.

Satisfactory – You showed up and completed all of your assignments in an adequate manner and participated regularly.

Unsatisfactory – You were late and/or absent, missed assignments, and did not engage with the class or your peers.

Summer Session Participation Contract

Attendance

1. All students must attend classes regularly and promptly.
2. Students who will be absent must call the INVESTING NOW office by 8:30 a.m. the morning of the absence. The voice mail system is on before and after office hours. The office phone number is 412-624-0224.
3. Students are not permitted to miss more than three days of the summer session and every two tardies will be considered an absence. If students commit to attend the summer session and miss more than three days or incur more than six class tardies, they may be removed from INVESTING NOW.
4. Students are required to attend a thirty-minute detention for every class in which they are tardy. This detention will take place in 135 Benedum Hall, which is in the 152 Benedum suite area, at the end of the next class day after the tardy occurs.

Conduct

1. Students must treat each other and the INVESTING NOW staff and instructors with respect.
2. As guests of the University of Pittsburgh, students must conduct themselves appropriately in the hallways, i.e. no running, loud talking or horseplay.
3. Students must eat within the designated boundaries and are not permitted to go outside of the assigned areas during lunchtime.
4. The use of ALL cell phones, iPods/MP3s, tablets and headphones are prohibited at all times, except during lunch. Students must turn off all devices and take off any headphones while in class. INVESTING NOW staff will take devices that are used at inappropriate times. If a staff person takes a device, it can only be returned to a parent. If a parent requests the device be returned to the student, the student *may* not be allowed to return to the summer program.
5. Students who engage in the inappropriate behaviors listed below may be dismissed from the summer program and placed on probation for the fall semester:
 - Use of obscene or profane language or gestures
 - Disruptive classroom behavior
 - Sleeping in class
 - Disrespectful language or actions towards INVESTING NOW staff, instructors or students
 - Smoking
 - Fighting

Depending on the situation, staff reserve the right to dismiss students from the INVESTING NOW program.

Performance

1. Students must be committed to working to enhance their academic skills. **This is not summer camp.**
2. Students are expected to participate fully in classroom discussions and activities.
3. All assignments, in and out of class, should reflect students' best efforts. Students are expected to maintain a written record of all grades.
4. When out of class work is given, student must write down all assignments in a planner and complete them on time.
5. Students should come to each class every day with any materials requested by instructors.

Dress

We expect students to dress in a respectful and tasteful manner that will not distract others in their classes. The following clothing items are **inappropriate** for the summer session and field trips:

Females: A belly or one-sleeve shirt, short skirts or shorts, plunging necklines, halter or tube tops, spaghetti-strap shirts, clothing that exposes a student's midriff section (NO STOMACH/SKIN SHOWING).

Males: Pants below the waist, "du-rags," athletic undershirts, tank tops, hats (at the discretion of the instructor).

Students dressed inappropriately will be asked to change clothing or go home.

Note: We reserve the right to determine the appropriateness of students' attire.

I have reviewed the INVESTING NOW summer session participation contract, and agree to follow the attendance, conduct, performance, dress and library privilege guidelines. I understand that I may be dismissed from INVESTING NOW if I do not adhere to the contract guidelines.

Student name _____
(Please print)

Date _____

Student Signature _____

I have reviewed the INVESTING NOW summer session participation contract and I will monitor my child to insure that he/she adheres to the attendance, conduct, performance, dress and library privilege guidelines. I realize that my child's failure to adhere to these policies may result in his/her removal from INVESTING NOW.

Parent/Guardian Signature _____

Date _____

EMERGENCY MEDICAL RELEASE FORM

Student Name _____
(Please print)

I understand that an INVESTING NOW staff member will contact me in case of a medical emergency with my child. However, if I cannot be reached I authorize the INVESTING NOW staff to seek medical treatment for my child. I understand that I am responsible for and will pay all costs for medical treatment received during INVESTING NOW that is not covered under a family insurance policy.

Parent/Guardian Full Name (printed)

Date

Parent/Guardian Signature

PHOTOGRAPHY PERMISSION FORM

I, _____, agree to have my photograph used in the publication of brochures, pamphlets, web sites, power point presentations or any other project that the University of Pittsburgh, Swanson School of Engineering may deem necessary to use my photograph.

I will not seek royalties for use of my photograph. I provide this service willingly to the Swanson School of Engineering.

Student name _____
(Please print)

Date _____

Student Signature _____

Date _____

I have read the above-noted form and grant permission regarding my child.

Parent/Guardian Full Name (printed)

Date

Parent/Guardian Signature

INVESTING NOW LABORATORY SAFETY INSTRUCTIONS

To avoid injury to yourself and fellow students you are required to read, understand and sign this agreement. Failure to comply with these rules while performing laboratory experiments may result in suspension from the laboratory course.

1. If you have a medical problem or condition that may affect your performance or safety in the laboratory; you must discuss it in private with your laboratory coordinator. This information will be held in strict confidence.
2. **YOU MUST WEAR APPROVED SAFETY GOGGLES AT ALL TIMES WHILE DOING EXPERIMENTS.** It is a legal requirement for the Commonwealth of Pennsylvania that eye protection be worn in university teaching and research laboratories. **NO CONTACT LENSES** to be worn in the laboratory. Failure to comply with these rules will result in your dismissal from the laboratory for the day, and continued noncompliance could result in a zero in the lab portion of the class.
3. **BARE FEET OR ANY TYPE OF OPEN SHOES OR SANDALS CANNOT BE WORN INTO A CHEMICAL LABORATORY.** Failure to comply with this rule will result in your dismissal from the laboratory for the day.
4. **NEVER WEAR CUT-OFF TEE SHIRTS, HALTERS, SKIRTS, OR SHORT PANTS IN AN INSTRUCTIONAL LABORATORY.** In order to minimize the possibility of chemical burns on the body, you are expected to dress sensibly; if dressed inappropriately, you will be dismissed from the lab.
5. In case of an accident or spill, **NOTIFY THE LAB INSTRUCTOR IMMEDIATELY.** Note location of eye fountains and safety showers so that you can use them if needed.
6. Eye injuries, whether chemical or mechanical, must always be considered serious. The best procedure **IN CASE OF CHEMICAL INJURY TO THE EYE IS IMMEDIATE PROLONGED CONTINUOUS FLUSHING WITH WATER** (15 – 20 minutes) at an eye fountain. Eyes must be forced open to be washed well.
7. Throw away cracked or chipped glassware immediately and obtain replacements from the stockroom. Broken glassware must be placed in the special trash can labeled *Broken Glass Only*.
8. Do not touch any chemical with your fingers. Use a spatula to transfer solids and wear gloves when required. **FLUSH WITH WATER ANY PART OF YOUR BODY WHICH COMES IN CONTACT WITH A CHEMICAL USED IN THIS LABORATORY.** Plenty of running water is the best first aid treatment for all chemical accidents. Rapid and immediate treatment is essential. **USE LOTS OF WATER.** Clothing soaked with strong acid or alkali must immediately be removed. This is no time for modesty. The safety shower in the hallway is mainly intended to be used in cases where corrosive chemicals are spilled or splashed over a large body area.
9. For treatment of any accident you must go to Presbyterian University Hospital. You and the Lab Instructor together must file an Accident report within 24 hrs.
10. Except in very unusual circumstances, all medical claims are the responsibility of the student. **INSURANCE COVERAGE** by either a student or family plan is strongly encouraged.
11. **NEVER EAT OR DRINK IN THE LABORATORY.**
12. Exercise great care in noting the odor of fumes, and **AVOID BREATHING FUMES OF ANY KIND.** Use fume hoods when necessary.

13. Never force glass rods or tubing into rubber stoppers. Always use a lubricant (grease or glycerin) and protect hands with towel.
14. Long hair must be confined securely to minimize hazard.
15. **NO SMOKING** in the labs or hallways outside the labs is permitted.
16. **DO NOT RUN** in the laboratory. Do not engage in any activities or behavior which might confuse, startle, or distract another student.
17. **DO NOT PUT BACK ANY CHEMICAL, SOLID OR LIQUID IN TO THE STOCK BOTTLES** from which they were obtained. The excess chemical may now be contaminated.
18. **REPLACE STOPPERS**, lids, cover, etc. on the proper containers immediately after using the containers.
19. Never remove chemicals from the laboratory.
20. **BE CAUTIOUS:** assume all chemicals are toxic, and all organic liquids are flammable.
21. Clean up chemical spills immediately. Check with your instructor for the proper procedure.
22. Ask your Lab instructor about the disposal of used chemicals. All waste chemicals must be placed in containers labeled specifically for each waste material.
23. **SHOULD A FIRE ALARM SOUND** while you are working in the lab, turn off any Bunsen burner or hot plate stirrer, remove any reaction from any heat source, and leave the building by the nearest exit.
24. An instructor must always be present for students to work in any laboratory. No unauthorized experiments are permitted.
25. Always leave your work area clean at the end of each lab.
26. **WASH YOUR HANDS WHEN LAB WORK IS FINISHED.** It is a good idea to wash your hands whenever they have been in contact with any chemical, not just at end of the lab period.

My signature below indicates that I have read the above rules, have been informed of these rules by my instructor, and that I will observe and abide by these rules.

Student Signature: _____ Date: _____

I have reviewed the INVESTING NOW laboratory safety instructions and I will monitor my child to insure that he/she observes and abides by these rules.

Parent/Guardian Signature _____ Date _____

SUMMER SESSION STAFF

Mathematics

Michael Kristufek – Calculus

Mechanical Engineering Doctoral Student, University of Pittsburgh

BS, Physics Education, Edinboro University of Pennsylvania

BS, Mechanical Engineering – University of Pittsburgh

MS, Mechanical Engineering – University of Pittsburgh

Ashley Slaney – Algebra 1, Algebra 2

Teacher, CITY Connections Program

BS, Secondary Math Education – California University of Pennsylvania

MEd, Special Education – Waynesburg University

Melanie Williams – Geometry, Elementary Functions

Teacher, Pittsburgh Classical Academy

BS, Electrical Engineering – University of Pittsburgh

MAT, Math Education – University of Pittsburgh

Science

Jessica Maiers – Chemistry

Chemistry Teacher – University Prep

BS, Biology and Chemistry – University of Pittsburgh

MAT, Chemistry Education – University of Pittsburgh

Timothy McMurray – Biology

Science Teacher, Propel Homestead

BS, Biochemistry and Molecular Biology – Pennsylvania State University

MEd, Secondary Education – Duquesne University

Michael Kristufek – Physics

Mechanical Engineering Doctoral Student, University of Pittsburgh

BS, Physics Education, Edinboro University

BS, Mechanical Engineering – University of Pittsburgh

MS, Mechanical Engineering – University of Pittsburgh

Writing

Alyse Alexander – SAT Writing (Grade 10)

Teacher, Friendship Academy

BA, Psychology with English minor – Spelman College

Jaleah Robinson – SAT Writing (9th and 11th Grades)

Teacher, Environmental Charter School at Frick Park

BA, English Writing with Chemistry Minor – University of Pittsburgh

Engineering Projects

Naji Alibej – Robotics

Mechanical Engineering Doctoral Student, University of Pittsburgh

BS, Mechanical Engineering – University of Pittsburgh

Nicholas Kirsch – Robotics Project

Mechanical Engineering Doctoral Student, University of Pittsburgh

BS, Mathematics with physics minor – St. Vincent College

BS, Mechanical Engineering – University of Pittsburgh

MS, Mechanical Engineering – University of Pittsburgh

Chris Medberry, PhD – Bioengineering Project

Postdoctoral Fellow, University of Pittsburgh

BS, Bioengineering – Pennsylvania State University

PhD, Bioengineering – University of Pittsburgh

Abby Stahl – Bioengineering Project

Graduate Student, University of Pittsburgh School of Medicine

BS, Bioengineering – University of Pittsburgh

Deepthi Vijayraghavan – Bioengineering Project

Bioengineering Doctoral Student, University of Pittsburgh

BS, Bioengineering, University of California, San Diego

David Zabielski – XXX Project

Senior, Secondary Mathematics Education – Point Park University

Teaching Assistants

Victoria DeVore – Ninth Grade – Group B
Sophomore, Chemical Engineering Student
University of Pittsburgh

Amy Diederich – Tenth Grade – Group B
Junior, Chemical Engineering Student
University of Pittsburgh

Brandon Nelson – Tenth Grade – Group A & Eleventh Grade
Sophomore, Chemical Engineering Student
University of Pittsburgh

Tairey Perez – Ninth Grade – Group A
Sophomore, Information Science Student
University of Pittsburgh, Greensburg Campus

INVESTING NOW
2014 Summer Enrichment Program

Student Groups and Room Assignments

GROUP	9A TA: Tairey Perez	9B TA: Victoria DeVore	10A TA: Brandon Nelson	10B TA: Amy Deiderich	11 TA: Brandon Nelson
9:00-9:55 Am	Benedum G-29 <u>Algebra 1</u> -Ashley Slaney TA: Or Benedum G-30 <u>Geometry</u> -Melanie Williams TA:		Benedum G-28 <u>Chemistry</u> - <i>Jessica Maiers</i> TA: Brandon Nelson	Benedum G-31 <u>Writing</u> - <i>Alyse Alexander</i> TA: Amy Deiderich	Benedum G-26 <u>Writing</u> - <i>Jaleah Robinson</i>
10:00-10:55 Am	Benedum G-26 <u>Writing</u> <i>Jaleah Robinson</i> TA: Tairey Perez	Benedum G-27 <u>Biology</u> <i>Tim McMurray</i> TA: Victoria DeVore	Benedum G-31 <u>Writing</u> <i>Alyse Alexander</i> TA: Brandon Nelson	Benedum G-28 <u>Chemistry</u> <i>Jessica Maiers</i> TA: Amy Deiderich	Benedum G-29 <u>Algebra 2</u> <i>Ashley Slaney</i> Or Benedum G-30 <u>Trig/ Pre-Calc</u> <i>Melanie Williams</i> Or Benedum 226 <u>Calculus</u> <i>Michael Kristufek</i> on 7/16 report to Benedum 320
11:00-11:55 am	Benedum G-27 <u>Biology</u> <i>Tim McMurray</i> TA: Tairey Perez	Benedum G-26 <u>Writing</u> <i>Jaleah Robinson</i> TA: Victoria DeVore	Benedum G-30 <u>Geometry</u> <i>Melanie Williams</i> /TA: Or Benedum G-29 <u>Algebra2</u> <i>Ashley Slaney</i> /TA:		Benedum G-28 <u>Physics</u> <i>Michael Kristufek</i>

INVESTING NOW
2014 Summer Enrichment Program

Afternoon Engineering Projects
Student Groups and Room Assignments

11:55-12:55 pm	LUNCH- ALL STUDENTS				
GROUP	9A TA: Tairey Perez	9B TA: Victoria DeVore	10A TA: Brandon Nelson	10B TA: Amy Deidrich	11
PROJECT	LEGO Robotics		Bioengineering		Energy Systems and Solutions
1:00-3:00 pm	Benedum G-34 Facilitator: <i>Naji Alibeji</i>	Benedum B-02 Facilitator: <i>Nick Kirsch</i>	Benedum G-29 Facilitator: <i>Dr. Chris Medberry</i> Lab: Mobile Lab Computer lab: TBA	Benedum G-30 Facilitators: Deepthi Vijayraghavan & Abby Stahl Lab:SB26 Computer lab: TBA	Lab: Benedum 320 Facilitators: <i>Dave Zabielski & SRI students</i> Project work space: G-28

INVESTING NOW

Summer Enrichment Program

NINTH GRADE GROUPS

* = Students who have an altered scheduled.
You must find your schedule on "ALTERED SCHEDULE" page.

GROUP A	
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TA:	Tariey Perez
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*Glen	Almon
Terrence	Chavious
*Samuel	Copeland
Gerald	Ferguson
Nia	Haley
Isaiah	Hickman
*Jeffrey	Martin
Kathryn	May
*Deforest	McArthur
Micah	Morris
Ellis	Murray
*Austin	Taylor

GROUP B	
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TA:	Victoria DeVore
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Tatyana	Bell
Dayna	Calloway
David	Calloway, Jr.
Yasmeene	Henderson
Kahlil	Jackson
*Shawn	Knox
*Kennedy	Kyles
*Marcus	Mitchell
Ashley	Rayzer
*Ezekyel	Roberts
Qasai	Smalls
Jeremy	Taranto

INVESTING NOW
Summer Enrichment Program

NINTH GRADE MATH GROUPS

ALGEBRA 1

Terrence Chavious
Gerald Ferguson
Yasmeene Henderson
Kathryn May

GEOMETRY

Tatyana Bell
Dayna Calloway
David Calloway, Jr.
Nia Haley
Isaiah Hickman
Kahlil Jackson
Micah Morris
Ellis Murray
Ashley Rayzer
Ezekyel Roberts
Jeremy Taranto

ALGEBRA 2

*Glen Almon
*Samuel Copeland
*Shawn Knox
*Kennedy Kyles
*Jeffrey Martin
*Austin Taylor

PRE-CALCULUS

*Deforest McArthur
*Marcus Mitchell
*Qasai Smalls

Grade 9 Group A Room Assignments

9:00-9:55 am	Benedum G-29 <u>Algebra 1</u>-Ashley Slaney /TA: Or Benedum G-30 <u>Geometry</u>-Melanie Williams/TA:
10:00-10:55 am	Benedum G-26 <u>Writing-</u> Jaleah Robinson TA: Tairey Perez
11:00-11:55 am	Benedum G-27 <u>Biology</u> Tim McMurray TA: Tairey Perez
11:55-12:55 pm	LUNCH- ALL STUDENTS
1:00-3:00 pm	LEGO Robotics Benedum B-02 Facilitator: Naji Alibeji 15 PC's

Grade 9 Group B Room Assignments

9:00-9:55 am	Benedum G-29 <u>Algebra 1</u>-Ashley Slaney/TA: Or Benedum G-30 <u>Geometry</u>-Melanie Williams/TA:
10:00-10:55 am	Benedum G-27 <u>Biology</u> Tim McMurray TA: Victoria DeVore
11:00-11:55 am	Benedum G-26 <u>Writing</u> Jaleah Robinson TA: Victoria DeVore
11:55-12:55 pm	LUNCH- ALL STUDENTS
1:00-3:00 pm	LEGO Robotics Benedum 312 Facilitator: Nick Kirsch 15 laptops

INVESTING NOW
2014 Altered Summer Schedules

Ninth Grade

Ezekyel Roberts	Geometry	9B	G-30
	SAT Writing	9A	G-26
	Physics	11	G-28
Deforest McArthur	SAT Writing	11	G-26
	Marcus Mitchell	Pre-Calc	11
	Biology	9A	G-27
Shawn Knox	SAT Writing	11	G-26
	Kennedy Kyles	Biology	9B
	Algebra 2	10	G-29
Glen Almon	SAT Writing	11	G-26
Samuel Copeland	Algebra 2	10	G-29
Jeffrey Martin	Biology	9A	G-27
Austin Taylor			

INVESTING NOW

Summer Enrichment Program

TENTH GRADE GROUPS

* = Students who have an altered scheduled.
You must find your schedule on "ALTERED SCHEDULE" page.

GROUP A
TA: Brandon Nelson

*Ionie	Banner
Davaun	Barnett
*Neeloy	Chakraborty
*Ryland	Chope
Noah	Fitzpatrick
Scott	Graves III
Martell	Hardy
Nara	Hernandez
Justyce	Hill
*Kyla	Holbrook
*Sarah	May
Maranda	Mosley
Kayla	Ray
Keyshawn	Ray
Kayla	Ruslavage
*Amir	Thomas
Nehemiah	Walker
MaKenzie	Wright

GROUP B
TA: Amy Diederich

Janicka	Bell
William	Briscoe
Avery	Calloway
*Jeremy	Frazier
*Jaquan	Gethers
Charles	Green Jr.
*Antoine	Hamilton
Alexis	Harvey
Najee	King
*Kobie	Kyles
Tierra	Lee
Samantha	Moon
*Kobe	Sanders
*Hunter	Sasse
Evan	Villanueva

INVESTING NOW
Summer Enrichment Program

TENTH GRADE MATH GROUPS

GEOMETRY

Davaun	Barnett
Martell	Hardy
Keyshawn	Ray
Kayla	Ruslavage
Nehemiah	Walker
Janicka	Bell
Alexis	Harvey
Najee	King
Evan	Villanueva

ALGEBRA 2

William	Briscoe
Avery	Calloway
Noah	Fitzpatrick
Scott	Graves III
Charles	Green Jr.
Nara	Hernandez
Justyce	Hill
Tierra	Lee
Samantha	Moon
Maranda	Mosley
Kayla	Ray
MaKenzie	Wright

***PRE-CALCULUS**

*Ionie	Banner
*Ryland	Chope
*Jeremy	Frazier
*Jaquan	Gethers
*Antoine	Hamilton
*Kyla	Holbrook
*Kobie	Kyles
*Sarah	May
*Kobe	Sanders
*Hunter	Sasse
*Amir	Thomas

***CALCULUS**

*Neeloy Chakraborty

Grade 10 Group A Room Assignments

9:00-9:55 am	Benedum G-28 <u>Chemistry</u> <i>Jessica Maiers</i> TA: Brandon Nelson
10:00-10:55 am	Benedum G-31 <u>Writing</u> <i>Alyse Alexander</i> TA: Brandon Nelson
11:00-11:55 am	Benedum G-30 <u>Geometry</u> - <i>Melanie Williams</i> /TA: <i>Or</i> Benedum G-29 <u>Algebra2</u> - <i>Ashley Slaney</i> /TA:
11:55-12:55 pm	LUNCH- ALL STUDENTS
1:00-3:00 pm	Bioengineering Project Benedum G-29 Facilitator: <i>Dr. Chris Medberry</i> Lab: Mobile lab Computer lab G-34(M&T)

Grade 10 Group B Room Assignments

9:00-9:55 am	Benedum G-31 <u>Writing</u> <i>Alyse Alexander</i> TA: Amy Diederich
10:00-10:55 am	Benedum G-28 <u>Chemistry</u> <i>Jessica Maiers</i> TA: Amy Diederich
11:00-11:55 am	Benedum G-30 <u>Geometry</u> - <i>Melanie Williams</i> /TA: <i>Or</i> Benedum G-29 <u>Algebra2</u> - <i>Ashley Slaney</i> /TA:
11:55-12:55 pm	LUNCH- ALL STUDENTS
1:00-3:00 pm	Bioengineering Project Benedum G-30 Facilitator: <i>Deepthi Vijayraghavan & Abby Stahl</i> Lab: SB26 Computer lab: TBA

INVESTING NOW

2014 Altered Summer Schedules

Tenth Grade

Jeremy Frazier	SAT Writing	11	G-26
	Pre-Calc	11	G-30
	Physics	11	G-28
Sarah May	SAT Writing	11	G-26
	Pre-Calc	11	G-30
	Biology	9A	G-27
Neeloy Chakraborty	SAT Writing	11	G-26
	Calculus	11	G-226
	Biology	9A	G-27
Ionie Banner	Chemistry	10A	G-28
Ryland Chope	Pre-Calc	11	G-30
Jaquan Gethers	SAT Writing	9B	G-26
Antoine Hamilton			
Kyla Holbrook			
Kobie Kyles			
Kobe Sanders			
Hunter Sasse			
Amir Thomas			

INVESTING NOW
Summer Enrichment Program

ELEVENTH GRADE GROUP

* = Students who have an altered scheduled.
You must find your schedule on "ALTERED SCHEDULE" page.

Mya	Arthur
Jayson	Dean
*Owen	Dougherty
Terrell	Galloway
Angela	Hilf
*Tariq	Miller
*Wesley	Morris
Brionna	Nelson
*Rashawn	Russell
Mark	Schutzeus
Sean	Spencer-Palm
*Raymond	Stroud
Jazmen	Trent
Maya	Wilson

INVESTING NOW
Summer Enrichment Program

ELEVENTH GRADE MATH GROUPS

ALGEBRA 2

Jayson Dean
Angela Hilf
*Rashawn Russell
*Raymond Stroud

PRE-CALCULUS

Mya Arthur
*Owen Dougherty
*Tariq Miller
*Wesley Morris
Brionna Nelson
Sean Spencer-Palm
Jazmen Trent
Maya Wilson

CALCULUS

Terrell Galloway
Mark Schutzeus

Grade 11 Room Assignments

9:00-9:55 am	Benedum G-26 <u>Writing</u> <i>Jaleah Robinson</i>
10:00-10:55 am	Benedum G-29 <u>Algebra 2</u> <i>Ashley Slaney</i> Or Benedum G-30 <u>Trig/ Pre-Calc</u> <i>Melanie Williams</i> Or Benedum 226 <u>Calculus</u> <i>Michael Kristufek</i> on 7/16 report to Benedum 32
11:00-11:55 am	Benedum G-28 <u>Physics</u> <i>Michael Kristufek</i>
11:55-12:55 pm	LUNCH- ALL STUDENTS
1:00-3:00 pm	Alternative Energy & Electricity Lab: Benedum 320 Facilitators: <i>Dave Zabielski & SRI students</i> Project work space: Benedum G-28

INVESTING NOW
2014 Altered Summer Schedules

Eleventh Grade

Tariq Miller	SAT Writing	11	G-26
	Pre-Calc	11	G-30
	Biology	9A	G-27
Raymond Stroud	SAT Writing	11	G-26
	Algebra 2	10	G-29
	Biology	9A	G-27
Rashawn Russell	Chemistry	10A	G-28
	Algebra 2	11	G-29
	SAT Writing	9B	G-26
Owen Dougherty	Chemistry	10A	G-28
Wesley Morris	Pre-Calc	11	G-30
	SAT Writing	9B	G-26

