**PFL Short Courses**

**Jan. 5th to Jan. 16th**

Yes folks, it’s almost here, PFL Short Courses!! Regular school classes will be put on hold for two weeks while you dive into a subject in more depth. You will attend either a whole day class or two half day classes. We will choose soon.

**Full Day Class**

Kickstarting Strategy Game Design (Dave)

Tired of the same old 2-D video games? Want to get involved in the world of 3D? Then embark on a truly 3D adventure by learning to design and develop board games! Game design requires research, writing skills, devising strategy and creating balance, artistic vision, math and probability usage, and even psychology. We will design, build and test and possibly produce and market a new game.

Interior and Creative Design (Deb)

Home, apartment, or dorm: it’s a special place of your own that you will one day want to furnish in your own style. We will learn basic techniques of painting, refinishing, and upgrading furniture and lighting as well as some home decor sewing and projects.

Ecuador Medical Mission (Jarrod, Claire and Meagan)

As part of Claire’s senior project a team will have the opportunity to go to Ecuador. Our group will be embarking into the jungle and doing service projects where needed, and we will also be bringing down basic medical supplies.

Sports Statistics (Sean) also a possible half day class, what do you want?

Fantasy Football Fan? You need this course! It will be a survey of topics in statistics and their applications in the sports world; this can include interpreting the quarterback rating, predicting effectiveness in fantasy football, etc. Skills built in this class will carry over into STEM and social sciences in college.

Mathematical Modeling (Sean) also a possible half day class, what do you want?

This course will develop methods for solving real-world problems using math and presenting the results in written and oral presentations. Skills built in this class will carry over into STEM and social sciences in college.

Publishing a Literary Magazine (Alyssa)

What we’ll do: Sure, we’ll produce the 2nd edition of *Out of Con[text]*, but that’s just a sliver of what this course is really about. If you think you can handle eccentricity, and please remember this course is not for stingy imaginations.

**Half Day Class**

Sugar, Sugar: How sweet it is (Jane)

It has been touted as a cure and decried as a poison, which is it? Sugar cane was a valuable commodity for hundreds of years and wars have been waged to possess it.

But most important, we will **cook with sugar**. Candy, pralines, lollipops. A trip to the Penn State Creamery is planned, as well as to some local bakeries.

Coral Reef Adventure (Ellen)

Enjoy two weeks of virtual sunshine, exploring coral reefs of the world! Each day will begin with a 30-minute virtual field trip to one of the world’s amazing coral reefs. We’ll not only enjoy the beauty of the reefs, we’ll also learn about their biology, chemistry and ecology. We’ll learn some geography, as well.

Nuclear Chemistry (Ray)

Since radioactivity was discovered in the late 1800s, it has been the subject of many movies, cartoons, and TV shows. In this half-day course, explore the real history of the atomic bomb, the use of nuclear reactors for energy, and the use radioactive isotopes in cancer treatment.

Chemistry of Living Things (Ray)

Organic chemistry is the study of "living" things. It breaks down living things not only into organs seen in organisms, but goes a step further to break down those organs into atoms and molecules. This course helpful for a student entering a science or engineering major

Astrophysics (Ray)

Only in the last century did scientists really begin to understand the physics of the cosmos. Putting eyes to telescopes and pencils to paper. This course helpful for a student entering a science or engineering major as well as those who would like to get a better understanding of the cosmos.

Electricity and Magnetism (Ray)

For thousands of years, people all over the world have been fascinated by lightning. It wasn't until the 18th century that the path to the everyday use of electrical power began to take shape. This course will include laboratory exercises and a field trip to see the wind turbines.

Analyze THIS: Perfecting skilz with Excel and Access (Jane)

So you have a bunch of numbers … what next? Take your research papers, projects and proposals to the next level with beautiful charts and displays. Crunch numbers like a pro. For some challenging fun, we will go online to and find actual jobs that pay you to do simple coding.