New Courses Offered for 2010-2011

Math

Honors Statistics - 1 Credit

Honors Statistics is a course focused on four broad areas:

Exploring Data: Describing patterns. Sampling and Experimentation: Designing and conducting a study. Exploring Random Events: Using probability theory and simulation to study and anticipate patterns. Statistical Inference: Estimating population parameters leading to formulating and testing hypotheses. Prerequisite: Must meet or exceed honors requirement for Honors Algebra II/Trigonometry. Course will be offered based on enrollment. (*This course may be considered for credit at Keystone College as part of our Dual Enrollment Agreement)

Music

**Chrysalis (Women's Chorus) - 1 Credit

This ensemble meets daily and is open to all young women in grades 9-12. Vocal ability, as well as a desire to develop sight reading proficiency, is an essential requirement for admission. The chorus will perform music in unison, two part, three part and four part as chosen from the guidelines of Music Educators National Conference and American Choral Directors Association. Students interested in participating in this group should be aware of the following requirements:

- This ensemble will perform publicly at least 3 times each academic year.
- Participation in each performance is mandatory and will be recorded as an exam grade.
- Failure to participate in a public performance will require a makeup exam. Exam requirements will be outlined in the course syllabus.
- Each student will be required to purchase a polo shirt to be worn for performances, field trips and other special events.
- Grades are based on daily participation in class, monthly vocal exams, all public performances, in class assessments, and occasional theory tests.
- The music rehearsed and performed will be of the highest level, be from all periods of music history and will require the student to commit to musical excellence. Practicing at home maybe required.
- Students will be required to attend concerts by other Lackawanna Trail ensembles, either at the high school or at the elementary center.
- Any student interested in becoming a member of this ensemble **must** see Ms. Rinehimer before registering with the guidance office.

**Chor Leon (Men's Chorus) 1- Credit

This ensemble meets daily and is open to any young man in grades 9 – 12. Anyone who enjoys singing is invited to participate in this ensemble. Vocal ability as well as a desire to develop sight reading proficiency is an essential requirement for admission. The chorus will perform music in unison and two part as chosen from the guidelines of Music Educators National Conference and American Choral Directors Association. Students interested in participating should be aware of the following requirements:

- This ensemble will perform in public. Public performance dates will be announced to the chorus 4 weeks prior to the event.
- Participation in each performance is mandatory and will be recorded as an exam grade.
- Failure to participate in a public performance will require a makeup exam. Exam requirements will be outlined in the course syllabus.

Each student will be required to purchase a polo shirt to be worn for performance, field trips and other special events.

- Grades are based on daily participation in class, monthly vocal exams, all public performances, in class assessments, and occasional theory tests.
- Music rehearsed and performed will be of the highest caliber, be from all periods of music history and will require the student to commit to musical excellence. Practicing at home maybe required.
- Students will be required to attend concerts by other Lackawanna Trail ensembles, either at the high school or at the elementary center.
- Any student interested in becoming a member of this ensemble **must** see Ms. Rinehimer before registering with the guidance office.

Science

Honors Physical Science – 1 Credit

This course will introduce students to foundations in Physics and Chemistry. Emphasis will be placed upon reasoning skills and critical thinking. Unit One explores methods in experimental research and design. In unit two students are introduced to Newton's Laws of Motion. Unit Three explains how atomic structure influences chemical properties including the formation of chemical bonds. Unit four introduces concepts relating energy to waves, light and sound. Student will design conduct, interpret, and publish an Experimental Research Project. Student projects will be considered for presentation in the Junior Academy of Science. This course provides a gateway into upper level science courses.

Earth and Space Science - Credit

This course is designed to build on students' knowledge from previous science courses and apply that knowledge in understanding the complex systems of the Earth, the solar system, and the universe. Students will use research, technology, projects, and hands-on activities to explore topics ranging from the basic properties of energy and matter to the formation of the solar system. Special attention will be given to understanding the processes that continually shape the Earth and investigating the relationships between its many living and non-living systems.

Integrated Science - 1 Credit

Integrated Science is a course that will provide a hands-on approach to learning the many disciplines of science in a conceptual manner which ties the various disciplines together. The course will focus on Physics, Chemistry, Biology, and Earth and Space Sciences. Each quarter will be devoted to a single discipline, but will focus on the interrelationship of the disciplines. In addition, students will develop investigative skills to solve problems in each of the areas of science.

NOTE: This document has been edited to correct spelling errors.