|  |  |
| --- | --- |
| **COURSE NAME** | Physical Science |
| **COURSE NUMBER** | SC401/402 |
| **GRADE LEVEL** | 8-9 |
| **GRADING SCALE** | GVHS Standard Scale |
| **WEIGHT** | 1.00 |
| **CURRENT TEACHER** | Mr. Dibley and Mr. Bormann |

**COURSE DESCRIPTION:**

Physical Science is an introductory science course for 9th graders which covers the basic concepts of chemistry and physics. Broad topics to be covered include: Measurement, Physical vs. Chemical Properties of Matter, Atomic Structure, Valence Electrons & Bonding, Periodic Table, Basic Chemical Formulas, Energy & Its Forms, Velocity, Acceleration, Force, Work, Power, Waves, Electricity, and Magnetism.

**PRE-REQUISITES:**

None

**TEACHER EXPECTATIONS:**

The main goal of this lab science course is to help students understand that the goal of science is to refine our knowledge of the world around us and share that knowledge in order to better solve problems. The course allows for self-paced learning.

**MATERIALS AND EQUIPMENT NEEDED:**

Basic school supplies; computer/Internet access

**FEES:**

None

|  |  |
| --- | --- |
| **COURSE NAME** | Biology |
| **COURSE NUMBER** | SC101/102 |
| **GRADE LEVEL** | 9-10 |
| **GRADING SCALE** | GVHS Standard Scale |
| **WEIGHT** | 1.00 |
| **CURRENT TEACHER** | Mr. Dibley |

**COURSE DESCRIPTION:**

Biology is the life science course in high school. Topics include ecology, cell biology, genetics, and evolution.

**PRE-REQUISITES:**

Physical Science (typically; though not a necessity)

**TEACHER EXPECTATIONS:**

The main goal of this lab science course is to help students see that the study of life systems is interesting and relevant.

**MATERIALS AND EQUIPMENT NEEDED:**

Basic school supplies; computer/Internet access

**FEES:**

None

|  |  |
| --- | --- |
| **COURSE NAME** | Chemistry |
| **COURSE NUMBER** | SC201/202 |
| **GRADE LEVEL** | 11, 12 (typically 11) |
| **GRADING SCALE** | GVHS Standard Scale |
| **WEIGHT** | 1.25 |
| **CURRENT TEACHER** | Mr. Dibley |

**COURSE DESCRIPTION:**

Chemistry will cover simple to early advanced chemistry concepts, including the framework of chemistry covered in Physical Science. Topics to be covered include: Atomic Structure, Valence Electrons and Bonding, Acid / Base, Stoichiometric Relationships and Molar Quantities, Solutions, Reactions (rates and predictions), Chemical Formulas, Thermal Energy, and Gas Behaviors.

**PRE-REQUISITES:**

Physical Science; most students have also taken Biology (though it is not a requirement)

**TEACHER EXPECTATIONS:**

The main goal of this lab science course is to help students see that the study of chemistry helps them better understand the natural world around them.

**MATERIALS AND EQUIPMENT NEEDED:**

Basic school supplies; computer/Internet access

**FEES:**

None

|  |  |
| --- | --- |
| **COURSE NAME** | Natural History |
| **COURSE NUMBER** | SC203/204 |
| **GRADE LEVEL** | 10-12 |
| **GRADING SCALE** | GVHS Standard Scale |
| **WEIGHT** | 1.00 |
| **CURRENT TEACHER** | Mr. Dibley |

**COURSE DESCRIPTION:**

Natural History is an interdisciplinary science course in high school. Topics include ornithology, invasive species, plant physiology, and other varied and culturally-relevant issues.

**The course is taught as an online course.**

**PRE-REQUISITES:**

Physical Science, Biology

**TEACHER EXPECTATIONS:**

The main goal of this lab science course is to help students see that nature is the ultimate science lab that can be approached systematically in order to explain relationships between living and non-living components of ecosystems. **The course is taught as an online course.**

**MATERIALS AND EQUIPMENT NEEDED:**

Basic school supplies; binoculars, field notebook; computer/Internet access

**FEES:**

None

|  |  |
| --- | --- |
| **COURSE NAME** | Physics |
| **COURSE NUMBER** | SC301/302 |
| **GRADE LEVEL** | 11-12 |
| **GRADING SCALE** | Gayville-Volin HS Standard Scale |
| **WEIGHT** | 1.25 |
| **CURRENT TEACHER** | Mr. Gene Bormann |

**COURSE DESCRIPTION:**

Physics is the study of matter and energy and their relationships. Topics to be covered include: Motion; Forces; Gravitation; Energy, Work, and Simple Machines; Energy; States of Matter; Vibrations and Waves; Sound; Light; Electricity; Magnetism; Electromagnetism; Quantum Theory; The Atom; Solid-State Electronics; and Nuclear Physics.

**PRE-REQUISITES:**

The student must have completed Algebra I, Geometry, Physical Science, and be currently taking Algebra II (or have completed it). They need to have a complete understanding of manipulating equations to solve for a variable and have a good understanding of graphs. Math skills are vital to physics.

**TEACHER EXPECTATIONS:**

Students are to come to class prepared, willing to learn, and accept challenges with enthusiasm.

**MATERIALS AND EQUIPMENT NEEDED:**

Pencils

3 subject notebook (or the equivalent amount of paper)—to be used only with Physics

Calculator (with these functions +, -, \*, /, square root, square key, exponential key, sine, cosine, and tangent)

**FEES:**

None

|  |  |
| --- | --- |
| COURSE NAME | Anatomy & Physiology |
| **COURSE NUMBER** | SC501/502 (03053) |
| **GRADE LEVEL** | 11-12 |
| **GRADING SCALE** | Irene-Wakonda High School Standard Scale |
| **WEIGHT** | 1.25 |
| **CURRENT TEACHER** | Landra Knodel (SILDL – Irene-Wakonda High School) |

**COURSE DESCRIPTION:** Usually taken after a comprehensive initial study of biology, Anatomy and Physiology courses present the human body and biological systems in more detail. In order to understand the structure of the human body and its functions, students learn anatomical terminology, study cells and tissues, explore functional systems (skeletal, muscular, circulatory, respiratory, digestive, reproductive, nervous, and so on) and may dissect animals.

**PRE-REQUISITES:** Biology I

**TEACHER EXPECTATIONS:** Students are expected to come to class prepared, willing to learn, and accept challenges with enthusiasm. Since this is a distance learning course, students are expected to adhere to the SILDL guidelines and student expectations. Students must be responsible and be able to self-regulate when it comes to time on task and time management. Students should maintain ongoing communication with the instructor to be successful in a distance learning course.

**MATERIALS AND EQUIPMENT NEEDED:**

Computer with Internet access

Other materials, supplies and equipment will be provided by the school district.

**FEE:** None