### BIOLOGICAL SCIENCES

**BIOLOGY 120 BIOLOGICAL FOUNDATIONS**  ... A terminal course designed to introduce basic principles of life, such as structure and function, reproduction, evolution, diversity, and adaptation, leading to a broader understanding of man and his biological environment. Not applicable to biology emphases or minors. Three lectures and two hours of laboratory per week.

**COREQ:** MATH 141 OR MATH 140 OR WAIVER

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**BIOLOGY 141 INTRODUCTORY BIOLOGY I**  ... An introduction to biology emphasizing the chemistry of life, the cell, metabolism, genetics, bacteria and protists. Three hours of lecture and one hour of discussion and two hours of laboratory per week.  This course is prerequisite to all advanced courses in biology for majors and minors. Offered every term.

**PREREQ:** MATH 141 WITH GRADE OF C OR BETTER

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**BIOLOGY 250 ECOLOGY & GEOLOGY OF YELLOWSTONE NATL. PARK & UPPER GREAT PLAINS**  ... An interdisciplinary introduction to field methods, geology, ecology and natural history. Involves on-line work with additional lectures and labs at Yellowstone National Park and locations en route. Additional course fees apply. Students with disabilities may be accommodated. Biology or Geology/Geography majors take Bio/Geo 451 or see Department Chair. Summers only.

**COREQ:** MATH 140 OR MATH 141

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### CHEMISTRY

**CHEM 102 INTRODUCTORY CHEMISTRY**  ... An introduction to the general concepts of chemistry including matter and energy, atomic and molecular structure, bonding, reactions and stoichiometry, gas laws, changes of state, thermochemistry, acid-base theory, solutions, colloids, kinetics, equilibria and electrochemistry.

**PREREQ:** MATH 141 WITH A GRADE OF C OR BETTER OR WAIVER.

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**CHEM 104 INTRODUCTORY CHEMISTRY**  ... A continuation of CHEM 102.

**PREREQ:** CHEM 102

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### GEOGRAPHY AND GEOLOGY

**GEOGRPY 120 INTRODUCTION TO WEATHER AND CLIMATE**  ... This course introduces students to the processes controlling and distinguishing weather and climate. Particular emphasis is on data selection, interpretation, and analysis. The impacts of severe weather and climate change on humans is also emphasized. The labs expose students to the wide range of weather and climate information currently available on the Internet.

**COREQ:** MATH 141 OR WAIVER

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### GEOGRPY 210 PHYSICAL GEOGRAPHY

**Course Description:** A study of selected physical aspects of our geographic environment. Emphasis is given to the origin and characteristic features of topographic, climatic, vegetative and soil regions of the earth and to their interrelationships. The ultimate objective is to provide a foundation upon which to build a better understanding of human interrelationships with the physical environment. Field trips are normally taken.

**Coreq:** MATH 141 OR WAIVER

**Course Information:**
- **Class #:** 1129
- **Section:** 01
- **Units:** 5
- **General Education Designation:** Gen Ed Laboratory (GL)

**Meeting Information:**
- **Dates:** 05/27-07/03
- **Days:** MW
- **Times:** 08:30 AM - 10:15 AM
- **Location:** UH0150
- **Instructor:** Dale K Splinter

**Additional Information:**
- Information will be sent to the students email address shortly before the start of classes. Required lab fee is $25.

### GEOLGY 250 ECOLOGY & GEOLOGY OF YELLOWSTONE NATL. PARK & UPPER GREAT PLAINS

**Course Description:** An interdisciplinary introduction to field methods, geology, ecology and natural history. Involves on-line work with additional lectures and labs at Yellowstone National Park and locations en route. Additional course fees apply. Students with disabilities may be accommodated. Biology or Geology/Geography majors take Bio/Geo 451 or see Department Chair. Summers only.

**Coreq:** MATH 140 OR MATH 141

**Course Information:**
- **Class #:** 1709
- **Section:** 01
- **Units:** 4
- **General Education Designation:** Gen Ed Laboratory (GL)

**Meeting Information:**
- **Dates:** 06/16-07/25
- **Days:** Arranged
- **Times:** Arranged
- **Location:** WEB BASED
- **Instructor:** Juliana T Constantinescu

**Additional Information:**
- Students with disabilities may be accommodated. Biology majors/minors and Geology/Geography majors/minors should take BIO/GEOL 451. Contact Kari Borne (bornek@uww.edu or 262-472-1003) for an application or Professor Clokey (clokeyg@uww.edu or 262-472-5140) for academic requirements. Travel study registration is not available via WINS registration. Travel study participants may not add or drop a travel study course via WINS once it has been added to their academic schedule. Go to http://www.uww.edu/conteduc/travel/index.htm for more information on due dates, itinerary, and course fees.

### ASTRONOMY 112 INTRODUCTION TO ASTRONOMY

**Course Description:** An examination of concepts regarding the organization of the universe. The solar system, astronomical principles and instruments, stellar evolution and galaxies are among topics covered. Activities include field trips, observations of the night sky and of the sun with telescopes, and laboratory work. Four one-hour lectures and one two-hour laboratory/observation period per week. There are two required evening observation sessions during the semester.

**Coreq:** MATH 141 OR WAIVER

**Course Information:**
- **Class #:** 1528
- **Section:** 01
- **Units:** 4
- **General Education Designation:** Gen Ed Laboratory (GL)

**Meeting Information:**
- **Dates:** 06/16-07/25
- **Days:** MTWRF
- **Times:** 07:30 AM - 10:30 AM
- **Location:** UH0166
- **Instructor:** Steven C Sahyun

### PHYSICS

### PHYSICS 140 PRINCIPLES OF PHYSICS I

**Course Description:** An algebra-based course in classical mechanics at the introductory level. The content covers kinematics, Newton's laws, conservation laws, oscillations and waves, applications to fluids and elasticity, and thermodynamics and kinetic theory. Applications to the life and health sciences are emphasized, and essential MCAT subject matter is included. Basic understanding of trigonometry and the manipulation of vectors is necessary. Students with adequate mathematical preparation may wish to consider taking the PHYSICS 180 series. Four one-hour lectures and one three-hour laboratory per week.

**Coreq:** MATH 152

**Course Information:**
- **Class #:** 1567
- **Section:** 01
- **Units:** 5
- **General Education Designation:** Gen Ed Laboratory (GL)

**Meeting Information:**
- **Dates:** 06/16-06/18
- **Days:** T
- **Times:** 10:45 AM - 01:45 PM
- **Location:** UH0050
- **Instructor:** Jalal M Nawash

**Meeting Information:**
- **Dates:** 06/16-06/18
- **Days:** MWR
- **Times:** 10:45 AM - 12:45 PM
- **Location:** UH0141
- **Instructor:** Jalal M Nawash

### PHYSICS 212 PHYSICS FOR ELEMENTARY TEACHERS

**Course Description:** This course is a one-semester introduction to physics with curriculum and instruction designed as an activity-based hands-on course for K-8 elementary education students and open to all education majors. The course emphasizes a student-oriented pedagogy in order to develop various physics concepts and the nature of science. Topics covered include motion, forces, energy, light, heat, electricity, and magnetism.

**Prereq:** MATH 141 AND RESTRICTED TO STUDENTS WITH BSE PROGRAM

**Course Information:**
- **Class #:** 1635
- **Section:** 01
- **Units:** 4
- **General Education Designation:** Gen Ed Laboratory (GL)

**Meeting Information:**
- **Dates:** 05/27-07/27
- **Days:** MTWRF
- **Times:** 07:30 AM - 10:30 AM
- **Location:** UH0166
- **Instructor:** Steven C Sahyun