

## HEALTH AND PHYSICAL EDUCATION (HPE)

### **101. Weight Training:** One hour

A course designed to introduce the student to the scientific principles of weight training. The course will include a brief history of weight training, fundamentals of weight training, benefits of aerobic training, establishment of a personal training program, differentiation of free weights and machine weight lifting.

### **102. Jogging:** One hour

A course designed to teach the student correct running technique, and enable the student to participate in a structured jogging program. Included in the course is a brief overview of cardiovascular exercise.

### **103. Water Aerobics:** One hour

Introduction to calisthenics, aerobic, and rhythmical activities to be performed in the pool. All activities are performed in chest deep water, thus a class that the non-swimmer as well as the swimmer may enjoy. The concept of physical fitness, with the specific benefits of water resistance activities, will be the major focus of the course.

### **104. Recreational Activities:** One hour

A study of games and recreational activities. This course is designed to allow the student to perform a variety of recreational activities.

### **105. Leisure Activities:** One hour

A study of games and leisure activities. The course is designed to allow the student to perform a variety of leisure activities.

### **108. Soccer:** One hour

Emphasis is placed on the development of fundamental skills, knowledge, and appreciation. Rules and history of the game will be included.

### **111. Swimming:** One hour

A course for swimmers and non-swimmers alike. Emphasis is placed on teaching the student how to propel herself through the water with ease and confidence using the American crawl, back stroke, back crawl and breast stroke. Emphasis is also placed on safety measures and the development of aerobic fitness.

**113. Tennis: One hour**

A brief history of the game, court etiquette, selection and care of equipment, rules, scoring of the game, and strategy. Emphasis is placed on the development of the basic skills such as forehand, backhand, serve, volley and overhead. Strategy, patterns of play and match play will also be emphasized.

**117. Archery: One hour**

The fundamental skills of archery. Included in the course will be a brief history, selection and care of equipment, and shooting safety. Emphasis will be placed on target and distance shooting.

**120. Aerobics: One hour**

The application of physical fitness concepts and principles of conditioning through lecture, discussion and fitness workouts that strengthen the cardio vascular and muscular systems.

**121. Health and Fitness: Three hours**

An introductory course dedicated to promoting a healthy lifestyle that results in optimal fitness and wellness. Includes activities, fitness testing and personal assessments.

**206. Varsity Volleyball: One hour**

Varsity volleyball is open to those students who are selected to participate on the Intercollegiate Volleyball Team. Credit is limited to one (1) hour per season, up to a total of four (4) hours during a student's college career.

Prerequisite: Selection to the varsity team

**207. Varsity Volleyball: One hour**

Varsity volleyball is open to those students who are selected to participate on the Intercollegiate Volleyball Team. Credit is limited to one (1) hour per season, up to a total of four (4) hours during a student's college career.

Prerequisite: Selection to the varsity team

**208. Varsity Soccer: One hour**

Varsity soccer is open only to those students who are selected to participate on the Intercollegiate Soccer Team. Credit is limited to one (1) hour per season, up to a total of four (4) hours during a student's college career.

Prerequisite: Selection to the varsity team

**209. Varsity Soccer: One hour**

Varsity soccer is open only to those students who are selected to participate on the Intercollegiate Soccer Team. Credit is limited to one (1) hour per season, up to a total of four (4) hours during a student's college career.

Prerequisite: Selection to the varsity team

**212. Varsity Tennis: One hour**

Varsity tennis is open only to those students who are selected to participate on the Intercollegiate Tennis Team. Credit is limited to one (1) hour per season, up to a total of four (4) hours during a student's college career.

Prerequisite: Selection to the varsity team

**213. Varsity Tennis: One hour**

Varsity tennis is open only to those students who are selected to participate on the Intercollegiate Tennis Team. Credit is limited to one (1) hour per season, up to a total of four (4) hours during a student's college career.

Prerequisite: Selection to the varsity team

**214. First Aid and CPR: Two hours**

A course designed to train students in methods of promoting safety consciousness for accident prevention. An in-depth knowledge of a specific health/safety topic. Red Cross Emergency procedures with emphasis on practical application will be stressed. Upon satisfactory completion of this course, a student will be certified in Standard First Aid.

**216. Varsity Softball: One hour**

Varsity softball is open only to those students who are selected to participate on the Intercollegiate Softball Team. Credit is limited to one (1) hour per season, up to a total of four (4) hours during a student's college career.

Prerequisite: Selection to the varsity team

**217. Varsity Softball: One hour**

Varsity softball is open only to those students who are selected to participate on the Intercollegiate Softball Team. Credit is limited to one (1) hour per season, up to a total of four (4) hours during a student's college career.

Prerequisite: Selection to the varsity team

**218. Varsity Basketball: One hour**

Varsity basketball is open only to those students who are selected to participate on the Intercollegiate Basketball Team. Credit is limited to one (1) hour per season, up to a total of four (4) during a student's college career.

Prerequisite: Selection to the varsity team

**219. Varsity Basketball: One hour**

Varsity basketball is open only to those students who are selected to participate on the Intercollegiate Basketball Team. Credit is limited to one (1) hour per season, up to a total of four (4) during a student's college career

Prerequisite: Selection to the varsity team

**220. Intermediate Aerobics: One hour**

A continuation of HPE 120, Aerobics.

**JUDSON ORIENTATION (JUD)**

**101. Foundations for Success: One hour**

This course is designed to help determine how each student will use her college education by providing essential strategies and information for academic and social success. Through this course, each student will develop tools for maximizing her total college experience.

**PHYSICS (PHY)**

**102. Physical Science: Four hours**

Scientific principles and concepts in the physical sciences. Does not count toward a major or minor in chemistry, physics, or natural science. (Lec 3, Lab 2)

**201, 202. General Physics I and II:** Four hours per course

This course will cover material dealing with energy and matter, motion, mechanics, sound, light, heat, electricity, magnetism, radiation, atomic structure, and nuclear phenomena. (Lec 3, Lab 2)

Prerequisite for 201: MAT 121 with a grade of C or higher or MAT 151 or Math Placement score 29 or higher.

Prerequisite for 202: PHY 201

**203, 204. Engineering Physics I and II:** Four hours per course

A study of the main divisions of physics – classical and relativistic mechanics, dynamics, classical electromagnetism, basic quantum mechanics, and thermodynamics. (Lec 3, Lab 2)

Prerequisites for 203: MAT 151 and 161

Prerequisite for 204: PHY 203

**211. Astronomy:** Three hours

The study of the Universe -- the sun, the solar system, the life and death of stars, the formation of galaxies, and the relative position, motion, and size of celestial bodies.

Prerequisite: MAT 121 or permission of the instructor

**302. Elementary Modern Physics:** Four hours

Theoretical presentations and experimental demonstrations of modern physics; comparing and contrasting with classical physics. Includes: wave mechanics, quantum mechanics, harmonic oscillators, nuclear properties, and the special theory of relativity. (Lec 3, Lab 3)

Prerequisite: MAT 161, PHY 202 or PHY 204

**311. Basic Electronics:** Four hours

Laboratory oriented introduction to modern instrumentation. Topics include: an introduction to breadboarding, Ohm's Law fundamentals, switches, Wheatstone Bridge, capacitance, inductance, impedance, transformers, simple power supplies, LED's, IC's, amplifiers, and voltage regulators. (Lec. 2, Lab 4)

Prerequisite: PHY 201 and PHY 202

**400. Seminar:** One hour

Readings, discussion, and/or preparation of technical manuscripts of

concepts and problems in the field of physics.

Prerequisite: PHY 202 or PHY 204

**411. Special Studies:** Three hours

A course for upperclassmen seeking to complete requirements in their major or minor disciplines. Subjects will be taught that do not appear in the College catalog but yet are of value to a student in her career objectives and/or graduate studies.

Prerequisite: Approval by the Department Head

**412. Special Studies:** Three hours

A course for upperclassmen seeking to complete requirements in their major or minor disciplines. Subjects will be taught that do not appear in the College catalog but yet are of value to a student in her career objectives and/or graduate studies.

Prerequisite: Approval by the Department Head

**413. Special Studies:** Three hours

A course for upperclassmen seeking to complete requirements in their major or minor disciplines. Subjects will be taught that do not appear in the College catalog but yet are of value to a student in her career objectives and/or graduate studies.

Prerequisite: Approval by the Department Head

**414. Special Studies:** Three hours

A course for upperclassmen seeking to complete requirements in their major or minor disciplines. Subjects will be taught that do not appear in the College catalog but yet are of value to a student in her career objectives and/or graduate studies.

Prerequisite: Approval by the Department Head

## **WOMEN'S STUDIES (WST)**

**101. Women in Society:** Three hours

This course will emphasize the experience of women both historically and cross-culturally in the United States as well as the rest of the world. Focus will be on the distinctive role of women in all disciplines.