

reaction time. Meets Physical Education activity requirements for AA degree. Semester Offered: Fall, Spring, Summer.

**PHED-143 Advanced Karate** 1 cr.  
This class picks up where the beginning class leaves off. Students will finish the basics of one on one self-defense and will learn the basic application of two on one self-defense. Meets Physical Education activity requirements for AA degree. Semester Offered: Fall, Spring, Summer.

**PHED-144 Group Exercise - Step Aerobics** 1 cr.  
This course is designed to improve and maintain each participant's overall physical fitness. Physical participation is required and students are encouraged to work at their own pace. This course is suitable for all fitness levels. Meets the Physical Education activity requirement for the AA degree. Semester Offered: Fall, Spring and Summer.

**PHED-145 Group Exercise - Body Conditioning** 1 cr.  
This course is designed to improve and maintain each participant's overall physical fitness. Physical participation is required and students are encouraged to work at their own pace. Meets the Physical Education activity requirement for the AA degree. Semester Offered: Fall, Spring and Summer.

**PHED-155 First Aid/CPR** 2 cr.  
Instruction in appropriate procedures for rendering emergency care for the victim of an accident or sudden illness. Upon successful completion students will receive American Safety Health Institute (ASHI) certification. Does not meet Physical Education activity requirement for AA degree. Semester offered: Fall, Spring, Summer.

**PHED-182 Basketball** 1 cr.  
Instruction in the basic skills, strategies and officiating of basketball. Meets Physical Education activity requirement for AA degree. Semester offered: Fall, Spring

**PHED-188 Volleyball I** 1 cr.  
Instruction in the basic skills, strategies and officiating of volleyball with an emphasis on proper techniques. Meets Physical Education activity requirement for AA degree. Semester Offered: Fall, Spring.

**PHED-233 Golf II** 1 cr.  
Instruction in golf skills, equipment, rules, etiquette, and play. Understanding and application of the ball flight laws and principles of those laws. Meets Physical Education activity requirement for AA degree. Semester Offered: Fall, Spring

**PHED-282 Basketball II** 1 cr.  
Advanced instruction in all aspects of basketball including skills, philosophies, and coaching stratagems. Meets Physical Education activity requirements for AA degree. Prerequisite: PHED 182 or approval of instructor. Semester Offered: Fall, Spring.

**PHED-288 Volleyball II** 1 cr.  
Instruction in more advanced skills, strategies and officiating of volleyball with an emphasis on proper techniques. Meets physical Education activity requirements for AA degree. Prerequisite: PHED 188 or instructor's approval. Semester Offered: Fall, Spring.

## PHYSICAL THERAPIST ASSISTANT

**PTAP-110 Introduction to PTA** 3 cr.  
Introduction to the role of the PTA, PT, and other health care providers. Study of professional behaviors such as supporting the APTA, upholding ethical practices, abiding by applicable laws, maintaining patient confidentiality, demonstrating generic abilities, and understanding the *APTA Guide to Physical Therapist Practice*. Other topics include strategies to address personality types, learning styles, patient diversity, emotional responses, and activities of daily living. Introduction to information competencies, SOAP note documentation, and PTA MACS. Prerequisites: Acceptance into the PTA program. Semester offered: Spring for both programs.

**PTAP-115 Musculoskeletal Focus** 2 cr.  
Enrollment restricted to prospective PTA students only. Basic anatomy of the musculoskeletal system including identification of anatomical surface landmarks. Introduction to osteokinematics and arthrokinematics. Prerequisite: BIOL-112. Semesters Offered: Summer and Fall.

**PTAP-125 Clinical Kinesiology** 4 cr.  
Advanced anatomy of the musculoskeletal and nervous systems. Analysis of osteokinematics and arthrokinematics. Emphasis on clinical skills including palpation, manual muscle testing, goniometry, and special tests. Study of the normal gait cycle. Prerequisite: Acceptance into the PTA program. Semester Offered: Spring for both programs.

**PTAP-130 Pathophysiology** 3 cr.  
Introduction to the function, anatomical components, and pathologies of each system within the human body. Study of sign and symptoms, etiology, diagnosis, treatment, prognosis, and prevention of diseases related to each system. Prerequisite: Acceptance into the PTA Program. Semesters Offered: Spring for on-campus program; Summer for online program.

**PTAP-140 Therapeutic Exercise** 3 cr.  
Clinical techniques related to stretching, strengthening, posture, balance, coordination, agility, and aerobic conditioning. Treatment strategies for patients with surgical and non-surgical diagnosis. Prerequisite: PTAP 110, PTAP 125, PTAP 130, PTAP 150. Semesters Offered: Summer for on-campus program; Fall for online program.

**PTAP-150 Procedures I** 4 cr.  
Clinical procedures related to patient care including hand washing, vitals, pain assessment, body mechanics, ROM, bed mobility, and transfers. Application of modalities such as cryotherapy, heat therapy, ultrasound, phonophoresis, and intermittent compression. Study of basic pharmaceuticals and medical testing. Prerequisite: Acceptance into the PTA program. Semesters Offered: Spring for on-campus program; Summer for online program

**PTAP-160 Procedures II** 3 cr.  
Clinical procedures related to patient care including massage, airway clearance techniques, and wound care. Application of modalities such as infrared, ultraviolet, and diathermy. Study of wheelchair training, gait training, cardiac rehabilitation, and architectural barriers. Prerequisite: PTAP 110, PTAP 125, PTAP 130, PTAP 150. Semesters Offered: Summer for on-campus program; Fall for online program.

**PTAP-210 Principles of Rehabilitation** 5 cr.  
Treatment strategies for patients with complex diagnoses such as developmental disorders, CVA, TBI, SCI, AKA/BKA, and UMN/LMN lesions. Study of the nervous system and techniques related to the theories of neurological development. Study of abnormal gait, types of wheelchairs, and types of supportive devices. Prerequisite: PTAP 140, PTAP 160. Semesters Offered: Fall for on-campus program; Spring for online program.

**PTAP-240 Part-Time Clinical Externships** 2 cr.  
Two part-time clinical externships provide students with the opportunity to apply clinical skills acquired in the academic setting. These externships may be completed in any geographical area provided that a legal contract is established between the physical therapy facility and San Juan College. Prerequisites: PTAP 140, PTAP 160. Corequisite: PTAP 250. Semesters Offered: Fall for on-campus program; Summer for online program.

**PTAP-250 Procedures III** 4 cr.  
Clinical procedures related to patient care including cervical and lumbar traction. Application of electrotherapy modalities such as IFC, Pre-modulation, TENS, Combo, NMES, Russian, Biphasic, Iontophoresis, HVES, and Biofeedback. Study of aquatic therapy at the Farmington Aquatic Center. Prerequisite: PTAP 140, PTAP 160. Corequisite: PTAP 240. Semesters Offered: Fall for on-campus program; Summer for online program.

**PTAP-260 Seminar** 2 cr.  
Study of career related topics including obtaining licensure and developing a career plan. Other topics include identifying abuse, neglect, and harassment, maintaining quality assurance, recognizing organizational structure, and understanding finances related to physical therapy. Review outcome assessment and PTA MACS. Prerequisite: PTAP 140, PTAP 160. Semesters Offered: Fall for on-campus program; Spring for online program.

**PTAP-280 Full-Time Clinical Externships** 13 cr.  
Three full-time clinical externships provide students with the opportunity to apply clinical skills acquired in the academic setting. Each externship provides five weeks of direct patient care. Students must complete one rotation in each of the following settings: acute care (hospital), neurological rehabilitation, and outpatient. These externships may be completed in any geographical area provided that a legal contract is established between the physical therapy facility and San Juan College. Prerequisite: PTAP 210, PTAP 240, PTAP 250, PTAP 260. Semesters Offered: Spring for on-campus program; Fall for online program.

## PHYSICS

**PHYS-111 Intro to Physics** 4 cr.  
This course is not a lab science course and does not fulfill the requirement for lab sciences in the Associate of Arts degree. A primarily conceptual approach to classical physics; mechanics, heat, sound, optics, electricity, and magnetism. Intended for non-science majors who have not had high school physics. Prerequisite: MATH 096 or higher within last three years, or Math ACCUPLACER Placement, and RDNG 095 or

higher, or Reading ACCUPLACER Placement. Semester offered: Fall, Spring, or on Demand.

**PHYS-211 General Physics I** (3+2P) 3 cr.  
Non-calculus treatment of Newtonian mechanics, fluids, and sound. Satisfies requirements for most pre-medical and pre-dental programs and some science programs. Prerequisites: MATH 180 or high school trigonometry and MATH 185 or higher within last three years, RDNG 095 or higher or Reading ACCUPLACER placement, and ENGL 099 or higher or English ACCUPLACER placement. Semester offered: Fall and Spring. [NM Common Course Number PHYS 1114, Area III; Laboratory Science Core]

**PHYS-211L Gen Physics Lab I** 1 cr.  
This course is the first in a two-semester laboratory sequence, which accompanies the algebra-based introductory physics sequence (211, 212). This course satisfies requirements for most pre-medical and pre-dental programs and some science programs. Co-requisite or Pre-requisite: PHYS-211 (Strongly recommended that this course is taken at the same time as PHYS-211). Semester Offered: Fall and Spring.

**PHYS-212 General Physics II** (3+2P) 3 cr.  
A continuation of PHYS 211 in which electricity, magnetism, light, and modern physics are studied. Prerequisite: PHYS 211 with a grade of "C" or better. Semester offered: Fall (On Demand) and Spring. [NM Common Course Number PHYS 1124, Area III; Laboratory Science Core]

**PHYS-212L Gen Physics Lab II** 1 cr.  
This course is the second in a two-semester laboratory sequence, which accompanies the algebra-based introductory physics sequence (211,212). This course satisfies requirements for most pre-medical and pre-dental programs and some science programs. Co-requisite or Pre-requisite: PHYS-212 (Strongly recommended that this course is taken at the same time as PHYS-212). Semester Offered: Fall (on demand) and Spring.

**PHYS-215 Engineering Physics I** (3+2P) 3 cr.  
A calculus level treatment of classical mechanics and waves. Physics principles are emphasized and illustrated by examples and problem practice. Prerequisites: MATH 188 with a "C" or better, PHYS 111 with a "C" or better or high school physics. Semester offered: Spring. [NM Common Course Number PHYS 1214, Area III; Laboratory Science Core]

**PHYS-215L Engineering Physics Lab I** 1 cr.  
This course is the first in a two-semester laboratory sequence, which accompanies the Calculus-based introductory physics sequence (215,216). Co-requisite or Pre-requisite: PHYS-215 (Strongly recommended that this course is taken at the same time as PHYS-215). Semester Offered: Spring.

**PHYS-216 Engineering Physics II** 3 cr.  
A calculus level treatment of topics in gravitation, electricity, and magnetism. Prerequisite: PHYS 215 with a "C" or better, and MATH 189 with a "C" or better. Semester offered: Fall. [NM Common Course Number PHYS 1224, Area III; Laboratory Science Core]

**PHYS-216L Engineering Physics Lab II** 1 cr.  
This course is the second in a two-semester laboratory sequence,