Burlington County Institute of Technology

Medford Campus

Westampton Campus

Career and Technical Programs

Career Cluster: *Health Science*
Program Name: *Kinesiology and Exercise Science*
Program Title: *Sports Medicine*
CIP Code: *310505*

Board Approval Date: August, 2023

Program of Study

- ➔ Grade 9
  - Foundations of Sports Medicine (HLTH 1101)
  - Medical Terminology (HLTH 1241)
- ➔ Grade 10
  - Care and Prevention of Athletic Injuries
  - Injuries to Lower Extremity
  - Emergency Preparedness
- ➔ Grade 11
  - General Medical Conditions in Athletes
  - Injuries to the Upper Extremity
  - Exercise Science
- ➔ Grade 12
  - Therapeutic Modalities
  - Kinesiology
  - Personal Training
  - Foundations of Physical Therapy

➔ Program Descriptor

- Sports Medicine is a multi-level program designed for students interested in pursuing careers in the fields such as athletic training, physical therapy, medicine, fitness, physiology of exercise, and kinesiology, as well as other related fields. The course includes theory and practical applications in the following areas: prevention, treatment, and rehabilitation of sports related injuries, taping and wrapping, first aid, CPR, emergency procedures, nutrition, sports psychology, anatomy and physiology, fitness, designing strength and conditioning programs, and sports medicine careers. This program will also offer practical experiences with our school athletic trainer and/or local sports medicine specialists.

➔ Program Outcome

- Graduates of the Sports Medicine program will possess the skills and competencies required for entry level employment as well as a foundation for pursuing post secondary education. Upon completion of the course, students can receive certification as nationally certified Personal Trainer and/or Physical Therapy Aide/Technician. In addition students can receive certification in CPR, AED, and First-Aid.

➔ Work Based Learning Opportunities

- Job Shadow: Students in the sports medicine career major will shadow our school's certified athletic trainer multiple times throughout the first two years of the program.
- Non-Hazardous Simulated Work Environment: Students in the Sports Medicine career major will assist our school's certified athletic trainer by the following: provide evaluations, treatment, and rehabilitation to our student-athletes under the supervision of the certified athletic training within our standing orders.
- Non-Hazardous Cooperative Education: Students will work as a Physical Therapy Aide/Technician in a physical therapy clinic with various providers and locations, such as Strive Physical Therapy or Davis Physical Therapy.

➔ Industry Valued Credentials

- Physical Therapy Aide/Technician
- Certified Personal Trainer
- OSHA Healthcare 10
- OSHA EMS 10
- American Red Cross First Aid/CPR/AED

➔ Post-Secondary Articulations

- Rowan College at Burlington County
  - EXS 102 Injury Prevention/First Aid
- Richard Stockton University
  - EXSC 1102: First Aid, CPR and Athletic Training
  - EXSC 2101 Biomechanics & Motor Learning
  - HLTH 1101 Introduction to Health Science
  - EXSC 2102 Principles of Strength Training and Conditioning
  - HLTH 1241 Medical Terminology for Health Science

Course Descriptions

1. Grade 9
   a. *Foundations of Sports Medicine:* This course is designed to introduce the profession and the historical foundations of the field of sports medicine. This course will delineate the responsibilities of the Sports Medicine Team. Various career opportunities that are in the field of sports medicine will be discussed as well as legal and ethical considerations that sports medicine professionals may be faced with.
   b. *Medical Terminology:* This course explores the root words, suffixes, and prefixes of the vocabulary used in medical offices, hospitals, and other health care settings. Students review the nervous, skeletal, cardiovascular, muscle, and other major systems of the human body, and discuss terms related to physiology, anatomy, and pathological conditions. Students learn to spell, pronounce, define, analyze and formulate terminology related to body structure, disease, diagnosis and treatment. Medical abbreviations will also be included.

2. Grade 10
   a. *Care and Prevention of Athletic Injuries:* This course focuses on the study of injuries and illnesses related to athletics, including their causes, effects, and treatments. Students will learn a range of sports medicine techniques, including bandaging, wound care, taping, and the use of protective devices.

Emphasis will be placed on understanding the pathology of these conditions and implementing preventive measures.

b. *Injuries to the Lower Extremity:* An introduction to mechanisms of injury, injury pathology, signs and symptoms, and management procedures for common sport/activity related trauma to the lower extremity. Basic evaluative techniques, special testing techniques, protective pad construction, and taping/wrapping techniques for the lower quarter will be presented.
c. *Emergency Preparedness:* This course covers the rationale and methods related to a comprehensive approach to emergency planning. The student will be introduced to emergency and immediate care of athletic injuries. Medical emergencies, physical trauma, various disease pathologies, bleeding, respiratory and cardiac emergencies, and transportation of the injured will be explored. The student will also experience emergency bandaging for open wounds, splinting for fractures and sprains, crutch fitting, and the use of a stethoscope and sphygmomanometer in a practical setting. Upon completion students should be able to design and implement an emergency action plan.

3. Grade 11
    a. *General Medical Conditions in Athletes:* Recognition, evaluation, management, and prevention of the most common medical conditions that affect athletic participation. Emphasis placed on the appropriate history, physical examination, indications for referral, and treatment for each condition.
    b. *Injuries to the Upper Extremity:* The Upper Extremity:An introduction to mechanisms of injury, injury pathology, signs and symptoms, and management procedures for common sport/activity related trauma to the upper torso, extremities, spine, and head. Basic evaluative techniques, special testing techniques, protective pad construction, and taping/wrapping techniques for the upper quarter will be presented.
    c. *Exercise Science:* A basic study of selected systems of the human body and their response to exercise, with emphasis on personal nutrition and its relationship to fitness, and the development of personal fitness programs. Lecture and participation. Completed medical history and informed consent form must be on file.
4. Grade 12
    a. *Therapeutic Modalities* This course explores the theory and application of the physiological regulation of pain, inflammation, and healing of the human body to include basic physics, application of modalities,

the basic rehabilitation concepts and modalities of the treatment and care of the physically active. The student will develop rehabilitative protocols for various orthopedic injuries.

b. *Kinesiology:* Biomechanics in sport incorporates a detailed analysis of sport movements in order to minimize the risk of injury and improve sports performance. Sport and exercise biomechanics encompasses the area of science concerned with the analysis of the mechanics of human movement.
c. *Personal Training:* This course is designed to effectively prepare students to sit for the nationally recognized personal training certification exam. The American Fitness Professionals and Associates Personal Trainer Certification program will provide students with personal training techniques and the tools needed to achieve success in the personal training industry.
d. *Foundations of Physical Therapy:* This course is designed to prepare students to take the Physical Therapy Aide/Technician certification. Physical Therapy Aides/Technicians participate in both the planning and implementing of individual patient treatment plans. PTTC are an active part of the physical therapy team, under the direction of the Physical Therapist or Assistant working together to get patients back to his/her daily activities. Certification is through the American Medical Certification Association.

Curriculum Maps

Course: Safety	Unit: OSHA 10	Length: 1 Week
Standards		

- 9.3.12.AG-FD.1 Develop and implement procedures to ensure safety, sanitation and quality in food product and processing facilities.
- 9.3.12.AC-CST.5 Apply practices and procedures required to maintain jobsite safety.
- 9.3.12.AR.2 Analyze the importance of health, safety and environmental management systems, policies and procedures common in arts, audio/video technology and communications activities and facilities.
- 9.3.12.ED.4 Evaluate and manage risks to safety, health and the environment in education and training settings.
- 9.3.HT-RFB.2 Demonstrate safety and sanitation procedures in food and beverage service facilities.
- 9.3.HU-ED.5 Evaluate safety and sanitation procedures associated with the early childhood education environment to assure compliance and prevent potential hazards.
- 9.3.LW.4 Conduct law, public safety, corrections and security work tasks in accordance with employee and employer rights, obligations and responsibilities, including occupational safety and health requirements.
- 9.3.LW-ENF.8 Explain the appropriate techniques for managing crisis situations in order to maintain public safety.
- 9.3.MN.3 Comply with federal, state and local regulations to ensure worker safety and health and environmental work practices.
- 9.3.MN-HSE.3 Demonstrates a safety inspection process to assure a healthy and safe manufacturing environment.

- 9.3.MN-HSE.5 Evaluate continuous improvement protocols and techniques in health, safety and/or environmental practices.
- 9.3.12.TD.5 Describe transportation, distribution and logistics employee rights and responsibilities and employers' obligations concerning occupational safety and health.
- 9.3.12.TD-HSE.1 Describe the health, safety and environmental rules and regulations in transportation, distribution and logistics workplaces.
- 9.3.12.TD-OPS.3 Comply with policies, laws and regulations in order to maintain safety, security and health and mitigate the economic and environmental risk of transportation operations.

Essential Question(s)

- Why is it important to practice safety?
- What do safe practices look like in my industry?
- How can I keep myself and others safe?

Content

- Walking working surfaces
- Emergency action plans
- Fire protection
- Electrocution hazards
- Personal protective equipment
- Hazard communication
- Materials handling, storage, use and disposal

Skills

- Explain why OSHA is important to workers.
- Explain workers rights under OSHA

- Discuss employer responsibilities under OSHA.
- Discuss the use of OSHA standards.
- Explain how OSHA inspections are conducted.
- Utilize helpful worker safety and health resources.
- Identify hazards in the workplace associated with walking and working surfaces.
- Identify best practices for eliminating or controlling hazards associated with walking and working surfaces in the workplace.
- Recognize employer requirements to protect workers from walking and working surface hazards.
- Recognize benefits of an Emergency Action Plan.
- Identify elements of the Fire Protection Plan.
- Identify conditions under which evacuation actions may be necessary in an emergency situation.
- Identify conditions under which shelter-in-place may be necessary in an emergency situation.
- Identify characteristics of an effective emergency escape route.
- Recognize the five types of fire extinguishers, including the types of fires they can extinguish.
- Review requirements for proper maintenance of portable fire extinguishers.
- Identify major electrical hazards.
- Describe types of electrical hazards.
- Describe electrical protection methods.
- Recognize employer requirements to protect workers from electrical hazards.
- Recall employer responsibilities toward affected employees regarding PPE.
- Identify when face and head protection should be used.
- Recall which types of hand and foot protection should be used in a specific situation.
- Recognize the differences between respirator types.
- Identify the differences between full-body protection levels.
- Identify the employer's responsibilities under the HCS, including training requirements.
- Identify components of a Hazard Communication program.
- Describe requirements of the different types of Hazard Communication labels.
- Locate pertinent information about chemicals on labels, including other forms of hazard communication, to ensure "right to understanding" provisions of GHS requirements.

- Identify types of material handling equipment.
- Describe hazards associated with material handling activities (e.g., storage, use, and disposal).
- Identify methods to prevent hazards associated with material handling equipment.
- Recognize employer requirements to protect workers from material handling hazards
- Identify the main causes of machinery accidents.
- Recognize basic machinery parts that expose workers to hazards.
- Recognize workplace situations involving machinery that requires guarding.
- Identify the requirements for safeguards.
- Identify types of machine guards including types of devices used to safeguard machines.
- Identify strategies to control chemical hazards.
- Identify strategies to control biological hazards.
- Identify strategies to control physical hazards.
- Identify strategies to control ergonomic hazards.
- Identify OSHA requirements pertaining to bloodborne pathogens.
- List the potential routes of exposure from bloodborne pathogens.
- Identify the risks associated with Human Immunodeficiency Virus (HIV), Hepatitis B, and Hepatitis C Virus.
- Identify methods of preventing transmission of bloodborne pathogens & managing occupational exposures.
- Restate methods of the safe disposal of sharps.
- Recount steps which should be taken in the event of an exposure to a potential bloodborne pathogen.
- Recognize risk factors associated with work-related musculoskeletal disorders (MSD)s.
- Identify good posture.
- Describe safe lifting techniques.
- Identify ergonomic control methods for eliminating/reducing work-related MSDs.
- Identify the number one cause of death for U.S. teens.
- List eight risk factors for young drivers.
- Identify the biggest risk factor for young drivers.
- Define distracted driving.
- Provide examples and/or causes of distracted driving.
- Identify the biggest risk factor for distracted driving

- Discuss the risk of having other young passengers in the car.
- List some actions employers should take to keep employees safe while driving.
- List some actions employees can take to safely drive on the job.
- Define the term violence.
- Recall who is at risk for encountering workplace violence.
- Describe workplace violence prevention strategies.
- Identify how to StartSafe and StaySafe to prevent or lessen workplace violence.
- Recognize the costs of workplace accidents.
- Recognize the benefits of implementing an effective safety and health program.
- Describe the elements of an effective safety and health program.
- Identify three methods to prevent workplace hazards.

Assessments

- OSHA 10 Assessment and Certificate

Course: Career Readiness	Unit: Career Awareness	Length: Woven Throughout

Standards

- 9.2.12.CAP.1: Analyze unemployment rates for workers with different levels of education and how the economic, social, and political conditions of a time period are affected by a recession.
- 9.2.12.CAP.2: Develop college and career readiness skills by participating in opportunities such as structured learning experiences, apprenticeships, and dual enrollment programs.
- 9.2.12.CAP.3: Investigate how continuing education contributes to one's career and personal growth.

- 9.2.12.CAP.4: Evaluate different careers and develop various plans (e.g., costs of public, private, training schools) and timetables for achieving them, including educational/training requirements, costs, loans, and debt repayment.
- 9.2.12.CAP.5: Assess and modify a personal plan to support current interests and postsecondary plans. ·
- 9.2.12.CAP.6: Identify transferable skills in career choices and design alternative career plans based on those skills.
- 9.2.12.CAP.7: Use online resources to examine licensing, certification, and credentialing requirements at the local, state, and national levels to maintain compliance with industry requirements in areas of career interest.
- 9.2.12.CAP.8: Determine job entrance criteria (e.g., education credentials, math/writing/reading comprehension tests, drug tests) used by employers in various industry sectors.
- 9.2.12.CAP.9: Locate information on working papers, what is required to obtain them, and who must sign them.
- 9.2.12.CAP.10: Identify strategies for reducing overall costs of postsecondary education (e.g., tuition assistance, loans, grants, scholarships, and student loans)
- 9.2.12.CAP.11: Demonstrate an understanding of Free Application for Federal Student Aid (FAFSA) requirements to apply for postsecondary education
- 9.2.12.CAP.12: Explain how compulsory government programs (e.g., Social Security, Medicare) provide insurance against some loss of income and benefits to eligible recipients.
- 9.2.12.CAP.13: Analyze how the economic, social, and political conditions of a time period can affect the labor market.
- 9.2.12.CAP.14: Analyze and critique various sources of income and available resources (e.g., financial assets, property, and transfer payments) and how they may substitute for earned income
- 9.2.12.CAP.15: Demonstrate how exemptions, deductions, and deferred income (e.g., retirement or medical) can reduce taxable income.
- 9.2.12.CAP.16: Explain why taxes are withheld from income and the relationship of federal, state, and local taxes (e.g., property, income, excise, and sales) and how the money collected is used by local, county, state, and federal governments. ·
- 9.2.12.CAP.17: Analyze the impact of the collective bargaining process on benefits, income, and fair labor practice. ·

- 9.2.12.CAP.18: Differentiate between taxable and nontaxable income from various forms of employment (e.g., cash business, tips, tax filing and withholding). ·
- 9.2.12.CAP.19: Explain the purpose of payroll deductions and why fees for various benefits (e.g., medical benefits) are taken out of pay, including the cost of employee benefits to employers and self-employment income.
- 9.2.12.CAP.20: Analyze a Federal and State Income Tax Return
- 9.2.12.CAP.21: Explain low-cost and low-risk ways to start a business.
- 9.2.12.CAP.22: Compare risk and reward potential and use the comparison to decide whether starting a business is feasible.
- 9.2.12.CAP.23: Identify different ways to obtain capital for starting a business

Essential Question(s)

- How does one prepare for a career?
- How does one improve marketability?
- Why is career planning important?
- What are the risks in starting a business?

Content

- There are strategies to improve one's professional value and marketability.
- Career planning requires purposeful planning based on research, self-knowledge, and informed choices.
- An individual's income and benefit needs and financial plan can change over time.
- Securing an income involve an understanding of the costs and time in preparing for a career field, interview and negotiation skills, job searches, resume development, prior experience, and vesting and retirement plans
- Understanding income involves an analysis of payroll taxes, deductions and earned benefits.
- There are ways to assess a business's feasibility and risk and to align it with an individual's financial goals

Skills

- Act as a responsible and contributing community member and employee.
- Attend to financial well-being.
- Consider the environmental, social and economic impacts of decisions.
- Demonstrate creativity and innovation.
- Utilize critical thinking to make sense of problems and persevere in solving them.
- Model integrity, ethical leadership and effective management.
- Plan education and career paths aligned to personal goals.
- Use technology to enhance productivity, increase collaboration and communicate effectively.
- Work productively in teams while using cultural/global competence.

Assessments

- Career Research Project
- Resume/Cover Letter

Course: Foundations of Sports Medicine — Length: Semester

Standards

- 9.2.12.CAP.2: Develop college and career readiness skills by participating in opportunities such as structured learning experiences, apprenticeships, and dual enrollment programs.
- 9.2.12.CAP.3: Investigate how continuing education contributes to one's career and personal growth.

- 9.2.12.CAP.4: Evaluate different careers and develop various plans (e.g., costs of public, private, training schools) and timetables for achieving them, including educational/training requirements, costs, loans, and debt repayment..
- 9.2.12.CAP.5: Assess and modify a personal plan to support current interests and postsecondary plans.
- 9.2.12.CAP.6: Identify transferable skills in career choices and design alternative career plans based on those skills.
- 9.2.12.CAP.7: Use online resources to examine licensing, certification, and credentialing requirements at the local, state, and national levels to maintain compliance with industry requirements in areas of career interest.
- 9.3.HL.1 Determine academic subject matter, in addition to high school graduation requirements, necessary for pursuing a health science career.
- 9.3.HL.2 Explain the healthcare workers' role within their department, their organization and the overall healthcare system.
- 9.3.HL.4 Evaluate the roles and responsibilities of individual members as part of the healthcare team and explain their role in promoting the delivery of quality health care.
- 9.3.HL.5 Analyze the legal and ethical responsibilities, limitations and implications of actions within the healthcare workplace.
- 9.3.HL.6 Evaluate accepted ethical practices with respect to cultural, social and ethnic differences within the healthcare workplace.
- 9.4.12.CT.1: Identify problem-solving strategies used in the development of an innovative product or practice (e.g., 1.1.12acc.C1b, 2.2.12.PF.3).
- WHST.9-10.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- RST.9-10.7. Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.

Essential Question(s)

- How does a good character translate into the workforce as a Sports Medicine professional?
- What is the importance of good character?

- Why is Sports Medicine such a dominating field in the healthcare industry?
- What is the longevity of a career in sports medicine?
- Why are multiple certifications important when dealing with the healthcare industry?
- What are the ramifications of the improper documentation of athletic injuries?
- What is the longevity of an athletic training career?
- Why are multiple certifications important when dealing with the healthcare industry?
- Why is it critical to understand who makes up the sports medicine team and their responsibilities?
- What type of personality would be ideal for this career choice?
- What do you consider to be an “effective” working relationship?
- Why is motivation important in this particular field?

Content

- Understanding the Six Pillars of Character:
    - Identify and explain the principles of caring, fairness, honesty, citizenship, responsibility, and respect.
    - Explore how these character traits apply to sports medicine and the broader healthcare field.
- Team Building in Sports Medicine:
    - Recognize the importance of teamwork and collaboration within the sports medicine context.
    - Discuss strategies for effective team communication and cooperation in providing care.
- Exploring the Circle of Care in Sports Medicine:
    - Define the concept of the Circle of Care in sports medicine.
    - Understand the various stakeholders involved in providing comprehensive care to athletes.
- Personal Attributes for a Successful Sports Medicine Career:
    - Identify and discuss the key personal attributes necessary for a career in sports medicine.
    - Reflect on how these attributes contribute to professional success and ethical practice.
- Roles and Responsibilities in the Sports Medicine Field:
    - Describe the different roles within the sports medicine team, including athletic trainers, strength and conditioning specialists, and others.
    - Understand the distinct responsibilities of each role and how they contribute to athlete care.
- Characteristics of a Sports Medicine Professional:

        - List and explain the essential qualities and characteristics of a competent and ethical sports medicine professional.
        - Discuss how these attributes contribute to building trust with athletes and fellow professionals.
    - Athletic Training Practice Domains:
        - Define and outline the core practice domains of athletic training, including injury prevention, assessment, treatment, and rehabilitation.
        - Explore the importance of each domain in maintaining athlete health and performance.
    - Strength and Conditioning Specialist (SCS) Overview:
        - Describe the role and responsibilities of a Strength and Conditioning Specialist (SCS).
        - Understand how SCS contributes to athlete performance enhancement and injury prevention.
    - Educational Requirements for Sports Medicine Professionals:
        - Explore the educational paths and qualifications needed to pursue a career in sports medicine.
        - Discuss the importance of ongoing education and professional development.
    - Effective Client Interaction in Sports Medicine:
        - Learn techniques for building rapport and effective communication with athletes and clients.
        - Understand the significance of trust and mutual respect in client relationships.
    - Evaluating Physical Fitness and Health:
        - Demonstrate the ability to assess an athlete's physical fitness and health status.
        - Understand the importance of regular evaluations in designing appropriate interventions.
    - Motivating and Empowering Clients:
        - Discuss strategies for motivating athletes and clients to adhere to exercise and rehabilitation programs.
        - Explore the psychological aspects of client motivation in sports medicine.

Skills

- Team Building and Character:
    - Students will work cooperatively during team-building activities.
    - Students will demonstrate critical thinking and problem-solving skills when participating in team-building activities.

        - Students will analyze how character influences work performance.
        - Students will apply a professional code of ethics to a workplace, problem, or issue.
        - Students will understand the personal characteristics, time involved, and education required for careers in sports medicine.
        - Students will describe the outcomes needed in each of these careers to become successful.
    - Adolescent Social and Emotional Growth:
        - Students will analyze the impact of physical development, social norms, expectations, self-esteem, and vulnerability on adolescent social and emotional growth and behavior.
    - Topic:Key Terms and Career Paths:
        - Students will define and correctly spell each of the key terms.
        - Students will discuss the educational paths and employment opportunities for athletic trainers, physical therapists, and strength and conditioning specialists.
        - Students will assess business opportunities in healthcare and other fields related to sports medicine and training.
    - Sports Medicine Team:
        - List the members of the sports medicine team and describe duties.
        - Describe the duties of a student athletic trainer and a certified athletic trainer.
        - List the legal responsibilities of an athletic trainer.
        - Describe the record-keeping requirements involved in athletic training.
        - Define and correctly spell each of the key terms.
    - Strength and Conditioning Specialist:
        - Describe the duties of a strength and conditioning specialist.
        - List the characteristics required of a strength and conditioning specialist.
        - List the educational requirements for a strength and conditioning specialist.
    - Client Interaction and Fitness Programs:
        - Describe effective methods of working with clients to establish an effective working relationship.
        - Explain the difference between a subjective and objective evaluation.
        - List the factors to consider when developing a fitness program.
        - Discuss ways of motivating clients in their pursuit of fitness and well-being.

Assessments

- Journal writing
- Group writing/discussion assignments
- Self/Peer assessments
- Sports Medicine career project that includes salary, education, and job outlook.
- Written Tests/Quizzes
- Determine the central ideas or conclusions
- Athletic Training Debate: Should the athletic training profession institute a name change?

Course: Medical Terminology Length: Semester

Standards

- RST.9-10.4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics.
- 9.3.HL-THR.3 Utilize processes for assessing, monitoring and reporting patient's/clients' health status to the treatment team within protocol and scope of practice.

Essential Question(s)

- Why do health-care providers utilize medical terminology?
- What is the importance of understanding medical terminology?
- Why is medical terminology a universal language amongst medical professionals?

Content

- Systems of the Body:
  - Identify and describe the major systems of the human body.
  - Explain the interrelationships between different body systems and their functions.
- Special Senses: The Ear:
  - Describe the anatomy and function of the human ear.
  - Explain how sound is transmitted and processed within the auditory system.
- Special Senses: The Eye:
  - Explore the anatomy and function of the human eye.
  - Discuss the process of vision, including light refraction and image formation.
- Obstetrics:
  - Understand the basics of obstetrics and reproductive health.
  - Explain the stages of pregnancy and the role of prenatal care.
- Oncology:
  - Define oncology and discuss the various types of cancer.
  - Describe the principles of cancer diagnosis, treatment, and prevention.
- Radiology and Nuclear Medicine:
  - Explore the principles of radiology and nuclear medicine.
  - Discuss the use of imaging techniques for medical diagnosis and treatment.
- Mental Health:
  - Understand the importance of mental health in overall well-being.
  - Discuss common mental health disorders, their symptoms, and treatment options.

Skills

- Identifying and Defining Combining Forms, Prefixes, and Suffixes:
  - Understanding the basic word components (roots, prefixes, and suffixes) used in medical terminology for each body system.
- Spelling and Pronouncing Medical Terms and Anatomical Structures:

        - Correctly spelling and pronouncing the names of major anatomical structures related to each body system.
    - 3. Identifying and Defining Vocabulary Terms:
        - Understanding key vocabulary terms specific to each body system.
    - 4. Identifying and Defining Pathology Terms:
        - Understanding medical terms related to diseases, disorders, and abnormalities specific to each body system.
    - Identifying and Defining Diagnostic Procedures:
        - Understanding and defining common diagnostic procedures used for each body system, such as imaging, tests, and assessments.
    - Identifying and Defining Therapeutic Procedures:
        - Understanding and defining common therapeutic procedures or interventions used for each body system.
    - Identifying and Defining Selected Medications:
        - Understanding and defining medications commonly used for each body system, including their purpose and effects.
    - Defining Selected Abbreviations:
        - Understanding and defining common medical abbreviations associated with each body system.

Assessments

- Medical Terminology Project: Students will choose 25 medical terms per body system and create a google doc slide that includes the definition, a sentence that utilizes the medical term, and a picture.
- Self-Assessment Quizzes through Quizlet.com
- Vocabulary Quizzes
- Determine the meaning of symbols, key terms, and other domain-specific words.

Course: Care and Prevention of Athletic Injuries	Length: Semester

Standards

- 9.3.HL-THR.3 Utilize processes for assessing, monitoring and reporting patient's/clients' health status to the treatment team within protocol and scope of practice.
- 9.3.HL-THR.4 Evaluate patient/client needs, strengths and problems in order to determine if treatment goals are being met.

Essential Question(s)

- Is there a set treatment protocol/time limit when dealing with bites and stings?
- Is the type of joint a factor in the treatment plan?
- Explain what is meant by "ice is nice, hot is not?"
- What happens when you tape an injury?
- Brace or Tape, Why?
- Is there a placebo effect with taping?

Content

- Control Bleeding:
  - Understand and apply techniques to control bleeding effectively.
  - Identify appropriate methods to address different levels of bleeding severity.
  - Demonstrate knowledge of when and how to use direct pressure, elevation, and pressure points.
- Principles of Wound Care:
  - Discuss the fundamental principles of wound care.
  - Understand proper wound cleaning, dressing, and the importance of infection prevention.
  - Recognize the stages of wound healing and how to assess wound progress.
- Bites and Stings:
  - Identify different types of bites and stings.
  - Describe appropriate first aid measures for bites and stings, including recognition of allergic reactions.

        - Understand the importance of seeking medical attention for severe cases.
    - Skin Infections:
        - Identify common skin infections.
        - Understand the causes, symptoms, and appropriate first aid measures for skin infections.
        - Recognize situations that require professional medical treatment.
    - Types of Muscle Tissue:
        - Differentiate between different types of muscle tissue (e.g., skeletal, smooth, cardiac).
        - Understand the functions and characteristics of each type of muscle tissue.
    - Types of Joints:
        - Identify different types of joints (e.g., hinge, ball-and-socket, pivot).
        - Understand the structure and function of each type of joint.
    - Injuries to the Joints:
        - Recognize and describe common joint injuries.
        - Understand the principles of first aid and initial care for joint injuries.
        - Discuss the importance of immobilization and when to seek professional evaluation.
    - Skeletal System:
        - Understand the components and functions of the skeletal system.
        - Identify major bones and their roles in support, protection, and movement.
    - Taping:
        - Explain the purpose and benefits of taping in injury prevention and support.
        - Understand the guidelines for proper taping techniques.
        - Identify common pitfalls and mistakes to avoid when taping.
    - The Purpose of Taping:
        - Discuss the various purposes of taping in the context of sports, injury prevention, and recovery.
        - Understand how taping can provide support, stability, and reduce the risk of further injury.

Skills

- Terminology:
    - Define and correctly spell each of the key terms.

        - Understand the proper use and storage of athletic tape.
    - 2. Cellular Components:
        - Name and explain the function of at least four cellular components.
    - Tissue Groups:
        - Name and describe the four different types of tissue groups.
    - Body Systems:
        - List the main components of a body system.
    - Joints and Soft Tissue Injuries:
        - Describe several types of joints in the body and their category.
        - Identify and discuss soft tissue injuries.
        - Discuss the different symptoms of sprains, strains, dislocations, and fractures.
    - Athletic Taping:
        - Discuss the importance of taping techniques in the prevention and treatment of athletic injuries.
        - Describe potential pitfalls of taping techniques.
        - Discuss the purpose of several different taping techniques.

Assessments

- Written Test/Quizzes
- Practical Test Label Skeleton
- Project 3D: The parts of the bone
- Project: Parts of the Human Cell
- Oral Competency Exams
- Determine the meaning of symbols, key terms, and other domain-specific words
- Practical Tests:
    - Light Ankle
    - Full Ankle
    - Shin Splints
    - Turf Toe
    - Arch Taping

- Basic Knee
- Achilles Tendon taping
- Elbow Taping
- Wrist Taping
- Thumb Taping
- Wrist and Thumb Combo
- Louisiana Wrap
- Hip Wrap

Course: Injuries to Lower Extremity	Length: Semester

Standards

- 9.3.HL-DIA.1 Communicate key diagnostic information to healthcare workers and patients in an accurate and timely manner.
- 9.3.HL-DIA.2 Assess and report patient's/client's health status in order to monitor and document patient progress.
- 9.3.HL-DIA.3 Demonstrate the principles of body mechanics for positioning, transferring and transporting of patients/clients, and perform them without injury to the patient/client or self.
- 9.3.HL-DIA.4 Explain procedures and goals to the patient/client accurately and effectively, using strategies to respond to questions and concerns.
- 9.3.HL-DIA.5 Select, demonstrate and interpret diagnostic procedures

Essential Question(s)

- How do injuries affect the health triangle?
- What is the importance of muscle origin and insertion when evaluating an injury?
- Explain how an ankle injury can affect the knee?
- How do you know what treatment to apply for a specific injury?

Content

- Treatment and Assessment of Specific Lower Extremity Injuries:
  - Demonstrate the ability to assess and diagnose specific lower extremity injuries.
  - Develop treatment plans for various lower extremity injuries, considering appropriate interventions and rehabilitation strategies.
  - Understand the importance of proper assessment techniques in tailoring effective treatment.
- The Pelvis:
  - Describe the anatomy and key structures of the pelvis.
  - Explain the function and role of the pelvis in the lower extremity kinetic chain.
  - Discuss common injuries and conditions related to the pelvis and their treatment.
- The Hip and Thigh:
  - Identify the major anatomical features of the hip and thigh.
  - Understand the function of the hip joint and its importance in movement and stability.
  - Discuss common injuries and conditions affecting the hip and thigh, along with appropriate treatment approaches.
- The Knee and Lower Leg:
  - Describe the anatomy of the knee joint and lower leg structures.
  - Understand the biomechanics of the knee joint and its interaction with the lower leg.
  - Discuss various knee and lower leg injuries, their assessment, and appropriate treatment modalities.
- The Ankle and Foot:
  - Identify the anatomical structures of the ankle and foot.
  - Understand the importance of proper foot and ankle function in overall lower extremity biomechanics.
  - Discuss common injuries and conditions affecting the ankle and foot, and outline effective treatment strategies.

Skills

- Understanding the Anatomy of the Pelvis and Lower Extremities:
  - Name the major bones of the pelvis and lower extremities.
- Types of Lower Extremity Joints and Their Functions:
  - Describe the different types of lower extremity joints and their functions.
- Common Injuries to the Pelvis and Lower Extremities:
  - Briefly describe common injuries to the pelvis and lower extremities.
- Treatment of Pelvic and Lower Extremity Injuries:
  - Discuss treatment strategies for pelvic and lower extremity injuries.
- Recognizing and Addressing Emergencies:
  - Explain potential emergencies that may result from an injury to the pelvis and lower extremities.

Assessments

- Written Tests/Quizzes
- Practical Assessment of range of motion (ROM) and strength of the hip.
- Oral practical exam of the Hip.
- Practical Assessment of ROM and strength of the knee.
- Oral practical exam of the Knee.
- Practical Assessment of ROM
- and Strength of the Ankle/Foot.
- Oral practical exam of the Ankle/Foot.
- Practical Exam labeling muscle origin and insertion on skeleton.
- Practical Exam label bony anatomy on skeleton.
- Research Paper on Lower Extremity Injury.

Course: Emergency Preparedness	Length: Semester

Standards

- 9.3.HL-SUP.1 Describe, differentiate and safely perform the responsibilities of healthcare support services roles.
- 9.3.HL-DIA.1 Communicate key diagnostic information to healthcare workers and patients in an accurate and timely manner.
- 9.3.HL-DIA.2 Assess and report patient's/client's health status in order to monitor and document patient progress.
- 9.3.HL-DIA.5 Select, demonstrate and interpret diagnostic procedures.
- RST.11-12.3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.

Essential Question(s)

- How do you delineate the roles in the
- Emergency Action Plan?
- What is the correlation of body planes and kinesthetic awareness when designing a rehabilitation plan or conditioning program?
- Do we train athletes in more than one plane at a time?
- What is the correlation of the Sport to the First Aid Kit?
- When purchasing items for your inventory, what is your main concern?
- Describe the magnitude of washing your hands.
- How will you emphasize the importance of personal hygiene to your clients/athletes?
- What is the significance between the systolic and diastolic

- numbers when assessing blood pressure?
- Is there a correlation between the vital signs when assessing a person?
- How do you know if you accurately assessed the vital signs?
- In an emergency situation, what is the most important?
- How do you maintain your professionalism in an emergency situation?

Content

- Emergency Preparedness:
  - Develop an Emergency Action Plan for sports or event scenarios.
  - Understand the importance of good observational skills in identifying potential emergency situations.
- Implementing Emergency Procedures:
  - Describe the steps to implement emergency procedures effectively.
  - Demonstrate proficiency in initiating the Primary Survey in emergency situations.
  - Conduct a thorough Secondary Survey to assess an athlete's condition and needs.
- First Aid Kits and Supplies:
  - Understand the components of a Basic First Aid Kit.
  - Learn how to assemble and maintain a Personal Kit.
  - Explain the importance of carrying Over-the-Counter Medications for common issues.
  - Develop specialized First Aid Kits for transport vehicles, athletes, and specific sports.
- Infection Control and Safety:
  - Discuss infection control measures and understand the Chain of Infection.
  - Comply with OSHA regulations and use Personal Protective Equipment.
  - Learn clean and sterile techniques, proper handwashing, and removing bloodstained clothing.
- Vital Signs and Basic Medical Techniques:
  - Demonstrate the ability to measure vital signs: Pulse, Respiration, Blood Pressure, Temperature, Weight, and Height.
  - Understand different resuscitation techniques, including Adult/Child/Infant CPR, Rescue Breathing, and using an AED.
  - Recognize the differences between conscious and unconscious states and address choking situations.

- Sport-Specific Care:
    - Understand the concept of an Athlete-Specific Kit and a Sport-Specific Kit, tailored to the needs of individual athletes and sports.
- Budgets/Inventory:
    - Manage budgets for first aid supplies.
    - Maintain inventory for replenishing first aid kits and supplies as needed.
    - Ensure adequate supplies are available for various medical scenarios.
- Breaking the Chain of Infection:
    - Understand strategies to break the Chain of Infection and prevent the spread of diseases in sports settings.

Skills

- Key Terms:
    - Define and correctly spell each of the key terms.
- Emergency Action Plan:
    - Prepare and establish an Emergency Action Plan for different venues.
- Anatomy and Movement:
    - Identify the three body planes and movements.
- Treatment Procedures:
    - Describe the proper procedure for the treatment of an unconscious athlete.
    - Explain and demonstrate the proper technique for fitting an athlete for crutches.
- Injury Surveys:
    - Perform a Primary Survey and Secondary Survey of Injuries.
- First Aid Kits and Contents:
    - Identify and describe the contents of each of the first aid kits described in the text.
    - List the forms that are a necessary part of your first aid kit.
    - Identify the items required in each of the first aid kits.
- Infection Control:
    - Define and correctly spell each of the key terms.

        - Describe the six components of the infection cycle and methods of interrupting the cycle.
        - List precautions for preventing puncture wounds from needles and other sharp objects.
        - Explain and demonstrate the proper procedure for putting on and taking off sterile gloves.
        - Recognize body secretions for which Standard Precautions must be used.
        - Name two serious illnesses clinical health personnel may contract from patients and explain how to prevent this from happening.
        - Demonstrate the procedure for proper handwashing.
    - Vital Signs and Measurements:
        - Students will accurately measure and record the four vital signs.
        - Students will accurately measure and record a person's height and weight.
        - Identify several abnormal respiratory patterns.
    - CPR and Life Support:
        - Students will perform a primary survey.
        - Students will perform a secondary survey.
        - Demonstrate the recovery position.
        - Explain and demonstrate all of the steps in adult/child and infant CPR.
        - Explain and demonstrate all of the steps in rescue breathing.
        - Explain and demonstrate proper use of AED.
        - Recognize signs/symptoms of seizure, stroke, heart attack, heat and cold illnesses, poison, diabetes, and asthma attacks.

Assessments

- Emergency Action Plan Project: Flow Chart step by step procedures for contacting EMS with two different venues.
- Oral Practical Assessment of unconscious athletes.
- Practical Assessment for crutch fitting.
- Written Tests/Quizzes
- Practical Exam: Assemble a First Aid Kit for a specific sport and explain what each item is and how you would use it.

- Budget Project: Students are given their employment scenario and amount of budget able to spend. They will design a budget using excel and must be able to explain why they purchased the items and how it will benefit the athletes.
- PowerPoint Project: Infection Cycle at work with specific illnesses/diseases and injuries.
- Practical Assessment:
- Hand washing Techniques
- Applying and Removing Gloves
- Determine the meaning of symbols, key terms, and other domain-specific words
- Students will be given scenarios and according to the signs/symptoms they need to act according to the treatment plan.
- Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used
- American Red Cross First Aid/CPR/AED certification

Course: General Medical Conditions in Athletes	Length: Semester

Standards

- 9.3.HL-THR.4 Evaluate patient/client needs, strengths and problems in order to determine if treatment goals are being met.
- 9.3.12.TD-HSE.1 Describe the health, safety and environmental rules and regulations in transportation, distribution and logistics workplaces.
- 9.3.12.TD-HSE.2 Develop solutions to improve performance of health, safety and environmental management services

Essential Question(s)

- How important is hydration in weather extremes?
- What is the ideal weather situation to practice?
- What do you consider to be a
- life-threatening emergency when discussing environmental issues?

Content

- Heat-Related Conditions:
  - Identify and describe the signs, symptoms, and appropriate first aid procedures for sunburn, heat cramps, heat exhaustion, and heat stroke.
- Cold-Related Conditions:
  - Recognize the signs, symptoms, and proper first aid for hypothermia and frostbite.
- Diabetes and Hypoglycemia:
  - Understand the basics of diabetes, including types, causes, and potential risks.
  - Identify the signs and symptoms of hypoglycemia (low blood sugar).
  - Demonstrate proper first aid steps to manage a person experiencing hypoglycemia or insulin shock.
- Respiratory and Seizure Disorders:
  - Understand the characteristics of asthma and seizure disorders.
  - Recognize the signs and symptoms of an asthma attack and a seizure.
  - Demonstrate appropriate first aid techniques for assisting individuals with asthma and seizure disorders.

Skills

- Knowledge and Terminology:
  - Demonstrate the ability to define and correctly spell each of the key terms related to environmental conditions and medical emergencies.
- Recognizing Signs and Symptoms:

        - Identify the signs and symptoms of conditions caused by exposure to extreme environments, such as heat-related illnesses and hypothermia.
        - Identify the signs and symptoms of medical conditions that require immediate treatment, including conditions like insulin shock, asthma attacks, and seizures.
    - Prevention and Minimization:
        - Describe effective methods to prevent or minimize the effects of environmental conditions, such as strategies to avoid sunburn, heat exhaustion, and frostbite.
        - Explain preventative measures to minimize the risk of exacerbating pre-existing medical conditions, particularly in extreme environmental conditions.
    - Emergency Response and Handling:
        - Describe methods of handling emergencies associated with extreme environmental conditions, such as proper first aid for heat stroke or frostbite.
        - Explain appropriate responses to emergencies involving individuals with pre-existing medical conditions, including administering first aid and seeking professional help as needed.

Assessments

- Written Tests/ Quizzes
- PowerPoint project: each student will be given a condition or illness. They will explain cause/effect signs/symptoms and treatment protocol.
- Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used.

Course: Injuries to the Upper Extremity Length: Semester

Standards

- 9.3.HL-DIA.1 Communicate key diagnostic information to healthcare workers and patients in an accurate and timely manner.
- 9.3.HL-DIA.2 Assess and report patient's/client's health status in order to monitor and document patient progress.
- 9.3.HL-DIA.3 Demonstrate the principles of body mechanics for positioning, transferring and transporting of patients/clients, and perform them without injury to the patient/client or self.
- 9.3.HL-DIA.4 Explain procedures and goals to the patient/client accurately and effectively, using strategies to respond to questions and concerns.
- 9.3.HL-DIA.5 Select, demonstrate and interpret diagnostic procedures.

Essential Question(s)

- When dealing with a concussion the athlete needs to rest, what does that mean specifically?
- Explain how someone has an abundance of strength at a significant moment?
- "What you do now affects the rest of your life" Explain
- How does an athlete compensate when it comes to an injury?
- When is enough, enough?
- What justifies the decisions you make as the health care provider?
- How do other outside factors influence diseases and illnesses?
- Hereditary or Environment, What could be the cause of the problem?

Content

- Head and Spine Injuries:
  - Identify and describe the signs and symptoms of head and spine injuries.
  - Understand the importance of prompt and proper treatment for head and spine injuries.
- Anatomy and Nervous System:

        - Describe the anatomy of the head, including its major structures.
        - Understand the Nervous System, including the Central Nervous System and the Peripheral Nervous System.
    - Treating a Downed Athlete:
        - Demonstrate the proper steps to treat a downed athlete while ensuring safety and minimizing further injury.
    - Injuries to the Brain and Senses:
        - Identify and describe different brain injuries, such as concussions.
        - Recognize injuries to the ear, eyes, nose, mouth, and jaw, and understand appropriate initial care.
    - Injuries to Upper Extremities:
        - Identify and describe injuries to the upper extremities, including the shoulder, elbow, forearm, wrist, and hand.
        - Understand the muscles, their origins, insertions, and associated nerves in the upper extremities.
    - Chest and Abdomen Injuries:
        - Identify and describe injuries to the chest and abdomen.
        - Understand the importance of recognizing and properly managing injuries in these areas.
    - Circulatory and Respiratory Systems:
        - Understand the basics of the Circulatory System and the Respiratory System.
        - Recognize the signs and symptoms of circulatory and respiratory emergencies.
    - Treatment for Shock:
        - Describe proper treatment for shock and understand the importance of maintaining circulation and oxygen supply.

Skills

- Terminology and Key Concepts:
    - Define and correctly spell each of the key terms.
- Brain and Head Injuries:
    - List and explain the major parts and functions of the brain.
    - Explain some common injuries to the head and describe their initial treatment guidelines.

- Facial Injuries:
  - Describe the symptoms of three common facial injuries and explain their treatment.
- Spine and Nervous System:
  - Briefly describe the composition of the spine.
  - Explain the purpose of the nervous system.
- Treating Head and Spine Injuries:
  - Discuss how to treat injuries to the head and spine.
- Upper-Extremity Injuries:
  - Identify major bones, muscles, veins, and arteries frequently involved in upper-extremity injuries.
  - Identify commonly injured upper-extremity injuries.
  - Understand and describe common upper-extremity injuries.
  - Recognize the signs and symptoms of shoulder, arm, and hand injuries.
  - Name and describe, with respect to individual sports, disorders of the upper extremities to which athletes are most susceptible.
- Chest and Abdomen:
  - Identify organs of the chest and abdomen and their respective injuries.
  - Name and define the three types of blood vessels and the three types of blood cells.
  - Identify the structure and function of the major parts of the heart.
  - Describe the path of a drop of blood as it flows through the heart.
  - Identify and describe the major parts of the respiratory system.
  - Describe the process of gas exchange.

Assessments

- Written Tests/Quizzes
- Projects:
  - Components of the Nervous System.
  - Students will pick a specific injury to Head/Face/Spine and present to class with visual and written components.
- Oral Competency Exam on Conscious/Unconscious Athlete

- Determine the meaning of symbols, key terms, and other domain-specific words
- Practical Exam labeling muscle origin and insertion on skeleton.
- Practical Exam Label bony anatomy on skeleton
- Shoulder Assessment for Range of Motion and Strength.
- Oral Competency Exam on Shoulder.
- Elbow Assessment For Range of Motion and Strength.
- Oral Competency Exam on Elbow.
- Wrist and Hand Assessment for Range of Motion and Strength.
- Oral Competency Exam on Wrist and Hand.
- Research Paper on Upper Extremity Injury.
- Determine the meaning of symbols, key terms, and other domain-specific words
- Oral Competency on Abdominal/Thoracic Region.
- Project: Heart
    - Gas Exchange
- Determine the central ideas

Course: Exercise Science	Length: Semester

Standards

- 9.3.HT-RFB.4 Demonstrate leadership qualities and collaboration with others.
- 9.3.HU-PC.2 Evaluate an individualized personal care plan that reflects client preferences, needs and interests for a course of treatment/action.

- 9.3.HU-PC.1 Analyze basic principles of biology, chemistry and human anatomy for safe and effective utilization and selection of personal care products and services.
- 9.3.HU-PC.2 Evaluate an individualized personal care plan that reflects client preferences, needs and interests for a course of treatment/action.
- 9.3.HU-PC.3 Utilize data and information to maintain electronic records of client services and make recommendations for personal care services.
- 9.3.HU-PC.4 Demonstrate policies and procedures to achieve a safe and healthy environment for personal care services.
- 9.3.HU-PC.5 Develop organizational policies, procedures and regulations that establish personal care organization priorities, accomplish the mission, and provide high-quality service to a diverse set of clients and families.
-

Essential Question(s)

- Are disease and illness connected to the food we eat?
- Is it appropriate for all athletes to eat the same foods?
- What do you do with a difficult client with limitations?
- What are the parameters and safety precautions when applying the overload principle?
- When do you use Overload Principle, Variation
- Principle and Specificity Principle?
- Can you use more than one principle at a time and still have an effective program?
- What are you trying to accomplish with this program?
- What influences will you pull from in creating an exercise program?
- Why are some exercises used in a variety of sports?
- Why do you need to have accountability for time in your workout sessions?
- What do you focus on more in your workout design, mode, intensity, duration or frequency?
- How do you incorporate progression in a team session?

Content

- Understanding Nutrition:
  - Explain the importance of a healthy diet.
  - Describe the roles of carbohydrates, protein, fat, fiber, vitamins, minerals, water, and cholesterol in nutrition.
  - Understand dietary reference intake guidelines.
- Food Information:
  - Interpret food labels and understand their significance.
  - Recognize popular dietary fads and their potential implications.
- Exercise and Nutrition:
  - Explain pre-exercise and post-exercise food choices.
  - Discuss the significance of weight control, energy balance, and body composition in relation to nutrition.
- Fitness Evaluations:
  - Describe muscular endurance, flexibility, and cardiovascular endurance evaluations.
  - Understand the assessment of body composition.
- Tailored Nutrition:
  - Discuss special considerations in nutrition, such as sports-specific programs.
  - Address motivational factors for clients and knowing your client's needs.
- Exercise Program Design:
  - Design exercise programs by considering mode, intensity and capacity, duration, and frequency.
  - Prioritize safety in exercise programs.
- Cardiovascular Fitness Programs:
  - Design walking/jogging programs to enhance cardiovascular fitness.

Skills

- Understanding Nutrition:
  - Explain the importance of a healthy diet.
  - Describe the roles of carbohydrates, protein, fat, fiber, vitamins, minerals, water, and cholesterol in nutrition.
  - Understand dietary reference intake guidelines.
- Food Information:
  - Interpret food labels and understand their significance.

        - Recognize popular dietary fads and their potential implications.
    - Exercise and Nutrition:
        - Explain pre-exercise and post-exercise food choices.
        - Discuss the significance of weight control, energy balance, and body composition in relation to nutrition.
    - Fitness Evaluations:
        - Describe muscular endurance, flexibility, and cardiovascular endurance evaluations.
        - Understand the assessment of body composition.
    - Tailored Nutrition:
        - Discuss special considerations in nutrition, such as sports-specific programs.
        - Address motivational factors for clients and knowing your client's needs.
    - Exercise Program Design:
        - Design exercise programs by considering mode, intensity and capacity, duration, and frequency.
        - Prioritize safety in exercise programs.
    - Cardiovascular Fitness Programs:
        - Design walking/jogging programs to enhance cardiovascular fitness.

Assessments

- Written/Oral tests
- and Quizzes
- Food Journal
- Food Guide
- Pyramid Project
- Team Nutrition
- Project Determine the meaning of symbols, key terms, and other domain-specific words
- 14 Rules of
- Conditioning Project
- Student/Teacher Critique on individual conditioning programs.
- Students will prepare an exercise program and take the class through the program like they are in a gym setting.

- Determine the meaning of symbols, key terms, and other domain-specific words
- Listing the equipment involved.
- Floor plan design.
- 45 minutes a session is accountable for every minute.

Course: Therapeutic Modalities	Length: Semester

Standards

- 9.3.HL-THR.3 Utilize processes for assessing, monitoring and reporting patient's/clients' health status to the treatment team within protocol and scope of practice.
- 9.3.HL-THR.4 Evaluate patient/client needs, strengths and problems in order to determine if treatment goals are being met.
- 9.3.HL-THR.1 Utilize communication strategies to answer patient/client questions and concerns on planned procedures and goals.
- 9.3.HL-THR.2 Communicate patient/client information among healthcare team members to facilitate a team approach to patient care.

Essential Question(s)

- Describe the significance of the variety of treatment protocols for using Electrical Muscle Stimulation?
- How do you determine the best mode of treatment with each injury?
- When would you use a whirlpool versus a Cryo Cuff, what are the determining factors?
- What are distinguishing factors to review when deciding to progress to the next stage of rehabilitation?

- What do you consider to be aggressive treatment protocol versus conservative treatment protocol?
- How do you distinguish what is the best protocol for the patient?

Content

- Legal and Safety Considerations:
  - Discuss legal implications in the context of rehabilitation.
  - Choose appropriate modalities considering safety and legal aspects.
- Modalities and Therapies:
  - Understand methods of heat and cold transfer.
  - Explain cryotherapy and its applications.
  - Describe thermotherapy and its benefits.
  - Discuss the use of electrical modalities in rehabilitation.
  - Explain the use of mechanical modalities in therapy.
- Rehabilitation Basics:
  - Understand the goals of rehabilitation.
  - Describe the roles and composition of the rehabilitation team.
  - Set up an effective rehabilitation environment.
- Initial Assessment and Documentation:
  - Describe the key aspects of the first rehabilitation session.
  - Conduct posture and joint assessments.
  - Understand the importance of SOAP notes in documenting rehabilitation progress.
- Rehabilitation Phases:
  - Describe the three phases of rehabilitation: acute, subacute, and chronic.

Skills

- Terminology and Basics:
  - Define and correctly spell each of the key terms.

        - Discuss the purpose of therapeutic modalities.
        - Explain the legal implications associated with the use of therapeutic modalities.
    - Types and Usage of Modalities:
        - List the different types of modalities and explain how they are used.
        - Discuss safety considerations involved with the use of therapeutic modalities.
    - Rehabilitation Phases and Enjoyable Experience:
        - Compare different phases of the rehabilitation process.
        - Describe at least five ways to make rehabilitation an enjoyable and productive experience.
    - Documentation and Posture:
        - Explain what “SOAP” notes are and how they are used.
        - Discuss the effects of proper and improper posture as they relate to physical therapy.
    - Range of Motion Measurement:
        - Demonstrate how to use a goniometer to measure Range of Motion.

Assessments

- Written Test/Quizzes
- Practical Assessments:
    - Explain and demonstrate proper use of each therapeutic modality with a given scenario. Also taking into consideration the implications and contraindications for equipment. Explaining the type of heat/cold transfer method that is applied to each modality.
    - Students will be given an injury scenario. They will develop a rehabilitation plan according to the signs and symptoms of the injury.

Course: Kinesiology	Length: Semester

Standards

- 9.3.HL-DIA.1 Communicate key diagnostic information to healthcare workers and patients in an accurate and timely manner.
- 9.3.HL-DIA.2 Assess and report patient's/client's health status in order to monitor and document patient progress.
- 9.3.HL-DIA.3 Demonstrate the principles of body mechanics for positioning, transferring and transporting of patients/clients, and perform them without injury to the patient/client or self.
- 9.3.HL-DIA.4 Explain procedures and goals to the patient/client accurately and effectively, using strategies to respond to questions and concerns.
- 9.3.HL-DIA.5 Select, demonstrate and interpret diagnostic procedures.

Essential Question(s)

- How can an athletic trainer minimize sports injuries through gait analysis?
- Why is it important for sports medicine students to have an understanding of durable medical equipment?

Content

- Understanding Human Movement and Gait:
  - Recognize the importance of understanding human movement and gait to prevent injuries.
- Orthotics and Fitting:
  - Understand the purpose and application of orthotics.
  - Describe the process of orthotic fitting.
- Individualized Sport Biomechanics:
  - Explain the concept of individualized sport biomechanics.
- Durable Medical Equipment Identification:

        - Identify different types of durable medical equipment, such as fracture boots, ankle braces, humeral cuffs, functional ACL braces, TROM (Total Range of Motion) devices, slings, and back braces.
    - Sports Equipment Fitting Guidelines:
        - Describe the fitting guidelines for sports equipment, including football helmets, football shoulder pads, mouthguards, headgear, and footwear.
    - Thermoplastic Braces:
        - Discuss the process of developing braces using thermoplastic materials.

Skills

- Analyzing Gait Patterns:
    - Students will be able to analyze gait patterns.
- Identifying Braces and Durable Medical Equipment:
    - Students will be able to identify various braces and durable medical equipment.
- Understanding Indications and Uses:
    - Explain the indication and uses for each type of Durable Medical Equipment (DME).
- Fitting Guidelines:
    - Understand fitting guidelines for different types of equipment, including braces and durable medical equipment.

Assessments

- Shoe Analysis Lab
- Gait Analysis Lab
- Thermoplastic Lab
- Lower Extremity Measuring Lab
- Equipment Fitting Lab
- Written Quizzes/Tests

Course: Personal Training	Length: Semester

Standards

- 9.3.HU-PC.2 Evaluate an individualized personal care plan that reflects client preferences, needs and interests for a course of treatment/action.
- 9.3.HU-PC.3 Utilize data and information to maintain electronic records of client services and make recommendations for personal care services.
- 9.3.HU-PC.4 Demonstrate policies and procedures to achieve a safe and healthy environment for personal care services.
- 9.3.HU-PC.5 Develop organizational policies, procedures and regulations that establish personal care organization priorities, accomplish the mission, and provide high-quality service to a diverse set of clients and families.

Essential Question(s)

- How can you make yourself stand out in the personal training industry?
- What sets you apart from everyone else?
- Explain what the employer wants in an employee.
- What are the requirements to pass the personal training certification exam?
- What study techniques will you incorporate to help you pass this exam?

Content

- Promoting Fitness Products and Services:
    - Understand the key selling points to effectively promote fitness products and services.

- Health Professional as a Salesperson:
  - Learn how health professionals can act as effective salespeople while maintaining ethical standards.
- Types of Sales Presentations:
  - Understand different approaches and types of sales presentations.
- Educational Materials:
  - Learn to create educational materials suitable for handouts, trade shows, and direct mail.
- Mass Media Promotions:
  - Understand strategies for mass media promotions and effective use of advertising channels.
- Making a Good First Impression:
  - Learn techniques for making a positive first impression in sales and interactions with clients.
- Creating Effective Written Introductions:
  - Understand how to craft written introductions that capture attention and communicate value.
- Interview Techniques:
  - Learn effective techniques for conducting sales interviews and addressing client needs.
- Plan for Success:
  - Develop a plan for successful sales and promotion within the fitness industry.
- Continuing Education and Certification:
  - Understand the importance of continuing education and certification, especially for a certified personal trainer role.

Skills

- Terminology and Fundamentals:
  - Define and correctly spell each of the key terms.
- Sales Presentations:
  - List five types of sales presentations.
- Creating a Positive Impression:
  - Describe techniques for creating a good impression over the telephone, in person, and in written correspondence.
- Professional Development:

        - Develop an effective resume and cover letter.
    - Business Planning:
        - List the key elements of a business plan.
    - Continuing Education in Sports Medicine:
        - Name three sources of information about continuing education and related opportunities in the field of sports medicine.
    - Certification as a Personal Trainer:
        - Students will become nationally Certified Personal Trainers upon passing the Exam.

Assessments

- Written Test/Quizzes
- Prepare resume`
- Practical Application:
    - Mock Interview with sample promotional package.
- Telephone interview

Course: Foundations of Physical Therapy — Length: Semester

Standards

- 9.3.HL-THR.1 Utilize communication strategies to answer patient/client questions and concerns on planned procedures and goals.

- 9.3.HL-THR.2 Communicate patient/client information among healthcare team members to facilitate a team approach to patient care.
- 9.3.HL-THR.3 Utilize processes for assessing, monitoring and reporting patient's/clients' health status to the treatment team within protocol and scope of practice.
- 9.3.HL-THR.4 Evaluate patient/client needs, strengths and problems in order to determine if treatment goals are being met.

Essential Question(s)

- What is the projected percent change in employment?
- What is the average growth rate of physical therapy aides, assistants, and DPT's?

Content

- American Medical Certification Association Physical Therapy Aide/Technician Certification Test

Skills

- 1.Anatomy and Physiology:
  - Describing the basic functions of each of the main body systems.
- Patient Care/Administrative: -Students will be able to perform proper charting. -Demonstrating knowledge of vital signs.
  - Demonstrating knowledge of proper wound care. -Demonstrating knowledge of First Aid. -Demonstrating knowledge of CPR. -Demonstrate knowledge of types of insurance.
  - Demonstrate knowledge of billing -Patient communication -Resume building
- 3.Medical Law & Ethics:
  - Maintaining confidentiality of privileged information on individuals
  - Valued diversity in the workplace
  - Interacting appropriately and professionally with other individuals
  - Discussing the major points of Patient's Bill of Rights

- Modeling professional appearance and appropriate behavior -Following instructions in carrying out testing procedures.
- HIPAA

- OSHA/Infection Control:
  - Identifying policies and procedures for maintaining laboratory safety.
  - Identifying the modes of transmission and methods of prevention -Identifying properly labeling biohazards specimens
  - Defining and discussing the term nosocomial infections -Complying with regulations regarding safety practices
  - Using the OSHA Standards Precautions -Demonstrating accepted practices for infection control
  - Demonstrating accepted practices for isolation techniques -Demonstrating accepted practices for disease prevention -Performing proper infection control such as handwashing -Performing proper infection control such as gowning and gloving -Using prescribed procedures to handle biological and fire hazards
  - Using prescribed procedures to handle electrical and radiation hazards
  - Using appropriate practices as outlined in the OSHA Hazard Communication
  - Using appropriate practices as in the Material Safety Data Sheet
  - Demonstrating a technique used to ensure patient safety inpatient setting -Demonstrating a technique used to ensure patient safety outpatient setting -Demonstrating a technique used to ensure patient safety in a pediatric setting
- Patient Prep/Positioning: -Describing different body positioning.
  - Defining the steps of patient preparation. -Defining the different steps of patient examination.
- Therapeutic Modalities:
  - Demonstrate knowledge of proper use of heat in treatment.
  - Cryotherapy
  - Demonstrate knowledge of proper use of crutches. -Demonstrate knowledge of proper use of walkers.
  - Demonstrate knowledge of proper use of parallel bars. -Types of transfers
- Medical Terminology

- Be able to define Medical Prefixes, Medical Suffixes, Root Words, and Cardiac and Circulatory Terminology

Assessments

- Practice quizzes
- Certification Test

Resources

➔ Course Resources

- Introduction to Medical Terminology, 3rd Edition; Erlich and Schroeder
- Workbook for Ehrlich/Schroeder's Introduction to Medical Terminology, 3rd,ISBN-13: 9781133951735
- American College Of Sports Medicine. Guidelines For Exercise Testing And Prescription. 1975. Ed. Barry A.
- Franklin, PhD,FACSM. Sixth Edition ed. Philadelphia: Lippincott Williams and Wilkins, 2000.
- Resource Manual for Guidelines for Exercise Testing and Prescription. Ed. Jeffrey L Roitman,
- EdD,FACSM. Fourth Edition ed. Philadelphia: Lippincott Williams and Wilkins, 2001.
- Resources for the Personal Trainer. Philadelphia: Lippincott Williams and Wilkins, 2005.
- Anderson, Bob. Stretching. Bolinas,California: Shelter Publications, Inc., 1980.

- Arnheim, Daniel D., D.P.E., A.T.,C. Modern Principles of Athletic Training. 1963. Seventh Edition ed. St.
- Louis: Times Mirror/Mosby College Publishing, 1989.
- Athletic Training And Sports Medicine. 2nd ed. Park Ridge, Illinois: American Academy Of Orthopaedic
- Surgeons, 1991.
- Booher, James M., Ph.D., A.T.,C., R.P.T., and Gary A. Thibodeau, Ph.D. Athletic Injury Assessment. 1985.
- Second Edition ed. St. Louis, Missouri: Mosby College Publishing, 1989.
- Clover, Jim, MEd.,ATC, PTA. Sports Medicine Essentials. Ed. Kay Stevens, RN,MA. Orange, California:
- Career, 2001.
- Hartley, Anne, B.P.H.E., Dip AT&M,CAT. Practical Joint Assessment. St.Louis: Mosby Year Book, 1990.
- Hoppenfeld, Stanley, M.D. Physical Examination Of The Spine And Extremities. New York, New York:
- Appleton-Century-Crofts, 1976.
- Horrigan, Joseph, D.C., and Jerry Robinson. The 7-Minute Rotator Cuff Solution. Los Angeles,California:
- Health For Life, 1991.
- Kapit, Wynn, and Lawrence M. Elson. The Anatomy Coloring Book. New York: Harper Collins, 1977.
- Kendall, Florence Peterson, P.T., and Elizabeth Kendall McCreary. Muscles Testing and Function. 1949. Third
- Edition ed. Baltimore, Maryland: Williams and Wilkins, 1983.
- National Athletic Trainers' Association. Journal Of Athletic Training.
- Norkin, Cynthia Clair, Ed.D., R.P.T., and D. Joyce White, M.S., R.P.T. Measurement of Joint Motion: A Guide
- To Goniometry . Philadelphia: F.A. Davis Company, 1985.
- Physician and Sportsmedicine.
- Prentice, William E., Ph.D., A.T.C., P.T. Rehabilitation Techniques in Sports Medicine . St. Louis, Missouri:
- Mosby College Publishing, 1990.
- Rothstein, Jules M., Ph.D.,P.T., Serge H. Roy, Sc.D.,P.T., and Steven L. Wolf, Ph,D., F.A.P.T.A. The
- Rehabilitation Specialist's Handbook. Philadelphia: F.A. Davis Company, 1991.

- Roy, Steven, M.D., and Richard Irvin, A.T.,C., Ed.D. Sports Medicine Prevention, Evaluation, Management,
- and Rehabilitation. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1983.
- Wright, Kenneth E., D.A., ATC, and William R. Whitehill, Ed.D., ATC. Basic Athletic Training. Ed. Katherine L. Bowers. Second Edition ed. Gardner, Kansas: Cramer Products Inc., 1995.
- Wright, Kenneth E., D.A., ATC, and William R. Whitehill, Ed.D.,ATC. The Comprehensive Manual Of
- Taping And Wrapping Techniques. Second Edition ed. Gardner, Kansas: Cramer Products,Inc, 1996.
- Belkin, Lisa. First, Do No Harm, Ballantine Books, 1993, ISBN: 0-449-22290-X.
- Epstein, Fred J. Gifts of Time, The Berkley Publishing Group, 1993, ISBN: 0-425-14403-8.
- Carson, Ben, M.D. Gifted Hands, Zondervan Publishing House, ISBN 0-310-21469-6
- Synderman, Nancy L., MD. Necessary Journeys. Hyperion: ISBN 0786884320
- Boylan, Bob. Get Everyone in Your Boat Rowing in the Same Direction. Adams Media Corp. ISBN 1-55850547-4
- Biro, David. One Hundred Days: My Unexpected Journey from Doctor to Patient. Vintage. ISBN 0-37570673-9
- Matthews Andrew, Follow Your Heart, Price Stern Sloan, ISBN 0843174919
- Mehren, Elizabeth, Born Too Soon, Kensington Publishing Corp. ISBN 1575663155.
- White and Cunningham, Ryan White: My Own Story, Signet, ISBN 0451173228
- Crichton, Michael. Five Patients: The Hospital Explained. Bt Bound; (May 2000) ISBN: 061321546X
- Dark Remedy by Trent Stephens
- The Traveler's Gift: Seven Decisions That Determine Personal Success by Andy Andrews
- My Pocket Mentor by Sandra Gaviola, 2004. ISBN: 1401835082
- Not Fade Away by Laurence Shames and Peter Barton, 2004. ISBN: 006073731X
- The Pact by Sampson Davis, George Jenkins, Rameck Hunt, Lisa Frazier Page, Riverhead Trade; Reissue edition, May 6, 2003, ISBN: 157322989X.
- The First Woman Doctor by Rachel Baker, Scholastic Paperbacks; Reissue edition (October 1, 1987) ISBN: 059044767X.

- Final Gifts: Understanding the Special Awareness, Needs, and Communications of the Dying (Paperback) by Maggie Callanan and Patricia Kelley, February 1997, ISBN-10: 0553378767
- A Random Act: An Inspiring True Story of Fighting to Survive and Choosing to Forgive (Paperback) by Cindi Broaddus and Kimberly Lohman Suiters, March 2006, ISBN-10: 0060735155
- Another Day in the Frontal Lobe: A Brain Surgeon Exposes Life on the Inside (Paperback) by Katrina Firlik, Reprint June 12, 2007 ISBN-10: 0812973402
- The Scalpel and the Silver Bear. (Paperback) by Lori Alvord and Elizabeth Cohen Van Pelt, June 2000 ISBN10: 0553378007
- Richard E. McDermott
- Code Blue, Traemus Books, 2009
- The Role of the Athletic Trainer in Sports Medicine: An Introduction for the Secondary School Student by William E. Prentice, Published by McGraw Hill
- Physical Therapy Aide: A Worktext, Roberta C. Weiss
- Anatomy A Photographic View, Rohen and Yokochi
- Trail Guide to the Body, Andrew Biel
- Medical Conditions in the Athlete, Katie Walsh Flanagan and Micki Cuppett
-