

# **Medical Academy Course Catalog**

# **Therapeutic Services**

# Sports Medicine & Fitness Trainer

Both physical fitness and communication play an important role in this occupation, fueled by the emphasis on healthier lifestyles.

Average Salary: \$25K - \$44K\*

# **Required Courses**

11th Grade

### **Sports Medicine 1a: Introduction**

What do you think of when you hear the phrase "sports medicine professional"? Believe it or not, the term encompasses a much larger range of career options than jobs typically associated with this field. Explore some of the most popular career pathways, day-to-day responsibilities, emergency care for athletes, and legal obligations. Discover what nutrition, healthy lifestyle, and fitness truly mean, and dive into anatomy, human biomechanics, and exercise modalities. Learn how to get started in this exciting field.

### **Sports Medicine 1b: Injury Prevention**

You've warmed up those muscles and stretched your understanding of basic human biomechanics, but now it's time to power forward your learning even further! In Sports Medicine 1b: Injury Prevention, you'll expand your understanding of the human body to provide a greater context for injury in a variety of scenarios. You'll learn how to evaluate an injury, onsite tests to perform, and when to refer a patient to a medical professional. You'll also explore the anatomy of specific body areas to better understand injuries that may occur as well as ways to prevent injury. Are you ready to keep athletes functioning at peak levels? Grab your sports tape and let's hit the field of sports medicine!

12th Grade

### **Sports Medicine 2a: Working With Clients**

You've learned the basics about how the body works and how to attend to athletes' injuries, but now, it's time to get personal! Time to personalize and plan for clients, that is! In this course, you will learn to develop dietary and exercise regimes for clients based on their needs and goals. You'll even have an opportunity to turn plans into action by designing workouts for your own example gym. Let's hit the ground running and continue building towards a career as a trainer!

### **Sports Medicine 2b: Personalizing Your Practice**

"Five, four, three, two, one—rest." You've learned what it looks like to work one-on-one with clients as a sports medicine professional, and now it's time to focus on the group. In this course, you will be introduced to teaching group exercise classes and providing rehabilitation services to clients facing injury and disease. You will also learn about laws that govern the work of sports medicine professionals, business concerns like insurance and staffing, and what you need to consider if you start your own fitness facility. It looks like it's time for the next set! Let's get started!

# **Optional Courses**

### **Pharmacology 1a: Introduction**

If you ever thought about pursuing a gratifying career in biomedical sciences, pharmacology is a must. Pharmacology is the fascinating study of the chemistry, origins, and types of medications. Whether you plan on going into medicine, nursing, dentistry, veterinary medicine, or pharmacy, you'll need to learn the effects of medicines on different biological systems, appropriate dosages, and how the body responds to different medications.

### Pharmacology 1b: Analysis and Effects

When implemented with care, medicine can cure illnesses and even save lives, but when distributed incorrectly, therapeutics can cause great harm. In this course, you will delve deeper into the study of medicine and treatments available to patients. You will learn about available medications for specific diseases, the way therapeutics work in the body, different drug classifications, the law behind administering drugs, and what a Pharmacy career can look like. Are you ready to continue injecting your brain with essential knowledge for a career in the medical field? Let's continue your journey of care.

### **Certifications**

#### Mid-pathway Certification

- NHSA (National Health Science Assessments)
- NASM (National Academy of Sports Medicine)
- NCHSE Human Structure, Functions, Disease (A)
- NCHSE Human Structure, Functions, Disease (B)
- NCHSE National Health Science Standards
- NCHSE: Foundations of Healthcare Professions

#### **Industry Certification**

- ACSM Certified Group Exercise Trainer
- ACSM Certified Personal Trainer

# Emergency Medical Responder

Having quick response times and providing lifesaving interventions are essential duties for this rewarding career.

Average Salary: \$25K - \$44K\*

### **Required Courses**

#### 11th Grade

### **Emergency Medical Responder 1a: Introduction**

Have you ever wondered what happens after making a 911 call? Get a realistic look into the day-to-day, fast-paced life of an EMR and how their roles and responsibilities fit into the larger picture with Emergency Medical Services. Discover how to conduct a patient assessment when you arrive on a scene and assess and treat various medical emergencies. If you've ever dreamt of being on the front lines, providing quality care to save someone's life, then explore the exciting career as an Emergency Medical Responder.

### **Emergency Medical Responder 1b: Prepared for Action**

Being an emergency medical responder is dynamic and challenging. EMRs are first responders who are prepared for action! Explore how to care for diverse patients in unique and even difficult situations. From advanced trauma to childbirth, from mass casualties to special conditions. EMRs are trained to care for, treat, move, and transport patients in various situations and play a vital role as part of an EMS response team.

#### 12th Grade

### **Pharmacology 1a: Introduction**

If you ever thought about pursuing a gratifying career in biomedical sciences, pharmacology is a must. Pharmacology is the fascinating study of the chemistry, origins, and types of medications. Whether you plan on going into medicine, nursing, dentistry, veterinary medicine, or pharmacy, you'll need to learn the effects of medicines on different biological systems, appropriate dosages, and how the body responds to different medications.

### Pharmacology 1b: Analysis and Effects

When implemented with care, medicine can cure illnesses and even save lives, but when distributed incorrectly, therapeutics can cause great harm. In this course, you will delve deeper into the study of medicine and treatments available to patients. You will learn about available medications for specific diseases, the way therapeutics work in the body, different drug classifications, the law behind administering drugs, and what a Pharmacy career can look like. Are you ready to continue injecting your brain with essential knowledge for a career in the medical field? Let's continue your journey of care.

#### Certifications

#### Mid-pathway Certifications:

- NHSA
- NCHSE Human Structure, Functions, Disease (A)

- NCHSE Human Structure, Functions, Disease (B)
- NCHSE National Health Science Standards
- NCHSE Foundation of Healthcare Professions

#### **Industry Certification**

National Registry for Emergency Technicians

### Allied Health Assistant

Working directly with patients and their families provides opportunities to make a difference in the lives of others. Over the next decade, there will be a high demand for careers in this field.

Average Salary: \$25K - \$44K\*

## **Required Courses**

#### 11th Grade

### **Health Science Theory 1a: Introduction**

From doctors and nurses to x-ray technicians and medical aides, the field of healthcare offers numerous roles that will allow you to make a difference in the lives of patients. In this course, you'll learn all about the foundations of healthcare from how the industry works around the world, to the different professions that fall within the field. You'll also learn medical terminology and calculations, the difference between diagnostic and therapeutic careers, and the legal and ethical considerations. Let's start building the foundation of a career in healthcare today!

#### **Health Science Theory 1b**

Coming soon.

#### 12th Grade

#### Allied Health Assistant 1a: Introduction

Are you passionate about helping people and making a difference in their lives? If you're planning on going into the healthcare field, then this course is for you! Explore your options by learning how to properly care for your patients and provide for the administrative needs of healthcare. Learn to prepare exam rooms, schedule, bill, and document all while solidifying your professional skills in communication, privacy, safety, and ethics.

#### Allied Health Assistant 1b: Skills and Specialties

Allied health encompasses a broad range of different health care professionals who provide a range of skills in the fields of dentistry, pharmaceutical, medicine, nursing, nutrition, rehabilitation, and more. This course is the second course of the Allied Health concentrator sequence and gives you the needed skills to pursue any of these careers in allied health.

### Certifications

#### Mid-pathway Certifications:

- NHSA
- NCHSE Human Structure, Functions, Disease (A)
- NCHSE Human Structure, Functions, Disease (B)
- NCHSE National Health Science Standards
- NCHSE Foundation of Healthcare Professions

### Dental Assistant

The rising demand for dental assistance is fuelled by the link between oral overall health.

Average Salary: \$25K - \$44K\*

### **Required Courses**

#### 11th Grade

#### **Dental Assistant 1a: Introduction**

Are you a compassionate person who genuinely cares about helping others be healthy? Learn how becoming a Dental Assistant can offer you a rewarding career as well as job security. Start with learning the different roles within a dentist's office, organizations to get involved with, and basic head, neck, and dental anatomy. Learn what it takes to embark on a career sure to provide personal and professional fulfillment.

### **Dental Assistant 1b: Principles of Clinical Dentistry**

You have scraped the surface of how rewarding assistant dentistry can be, and now it's time to drill deeper into the inner workings of the role. In Dental Assistant 1b: Principles of Clinical Dentistry, you'll learn about the daily duties of a dental assistant including the structure of an office visit, managing patient records, and administrative aspects of the role. You'll also explore how patient health can impact oral health, how to prepare for and perform a patient visit, and how to succeed in a team environment. Let's continue polishing those skills to become a dental assistant today!

#### 12th Grade

### **Pharmacology 1a: Introduction**

If you ever thought about pursuing a gratifying career in biomedical sciences, pharmacology is a must. Pharmacology is the fascinating study of the chemistry, origins, and types of medications. Whether you plan on going into medicine, nursing, dentistry, veterinary medicine, or pharmacy, you'll need to learn the effects of medicines on different biological systems, appropriate dosages, and how the body responds to different medications.

### Pharmacology 1b: Analysis and Effects

When implemented with care, medicine can cure illnesses and even save lives, but when distributed incorrectly, therapeutics can cause great harm. In this course, you will delve deeper into the study of medicine and treatments available to patients. You will learn about available medications for specific diseases, the way therapeutics work in the body, different drug classifications, the law behind administering drugs, and what a Pharmacy career can look like. Are you ready to continue injecting your brain with essential knowledge for a career in the medical field? Let's continue your journey of care.

### Certifications

Mid-pathway Certifications:

- NHSA
- NCHSE Human Structure, Functions, Disease (A)
- NCHSE Human Structure, Functions, Disease (B)
- NCHSE National Health Science Standards
- NCHSE Foundation of Healthcare Professions

### **Industry Certification**

- NCHSE Dental I
- NCHSE Dental II

### Medical Assistant

Medical Assistant is one of the fastest-growing occupations due to the aging population and increased demand for preventative medical services.

Average Salary: \$25K - \$44K\*

# **Required Courses**

#### 11th Grade

#### **Medical Assistant 1a: Introduction**

It takes a strong team to offer top-notch patient care, and each team member plays an integral role. Are you a team player interested in coordinating patient care? Then a career as a medical assistant may be right for you! In this course, you will acquire medical terminology, investigate anatomy and physiology, learn keys to professionalism in an office setting, and explore office roles while building a professional portfolio. Let's learn what it takes to fill the important shoes of a medical assistant today!

#### **Medical Assistant 1b: Medical Assisting in Action**

It's time to grab your latex gloves and snap them back into place so you can get a deeper look into the world of medical assisting! In this course, you'll explore patient care and procedures, testing and care coordination, pharmacology and safety, reimbursement, and the law. You'll also narrow your areas of interest so you can better determine what type of medical assistance may be best for you. Are you ready to continue on the road to medical assisting? Grab your lab coat and let's get going!

#### 12th Grade

### **Pharmacology 1a: Introduction**

If you ever thought about pursuing a gratifying career in biomedical sciences, pharmacology is a must. Pharmacology is the fascinating study of the chemistry, origins, and types of medications. Whether you plan on going into medicine, nursing, dentistry, veterinary medicine, or pharmacy, you'll need to learn the effects of

medicines on different biological systems, appropriate dosages, and how the body responds to different medications.

### Pharmacology 1b: Analysis and Effects

When implemented with care, medicine can cure illnesses and even save lives, but when distributed incorrectly, therapeutics can cause great harm. In this course, you will delve deeper into the study of medicine and treatments available to patients. You will learn about available medications for specific diseases, the way therapeutics work in the body, different drug classifications, the law behind administering drugs, and what a Pharmacy career can look like. Are you ready to continue injecting your brain with essential knowledge for a career in the medical field? Let's continue your journey of care.

### Certifications

Mid-pathway Certifications:

- NHSA
- NCHSE Human Structure, Functions, Disease (A)
- NCHSE Human Structure, Functions, Disease (B)
- NCHSE National Health Science Standards
- NCHSE Foundation of Healthcare Professions

#### **Industry Certification**

- AAMA Certified Medical Assistant
- NCCT National Certified Medical Assistant
- NHA Certified Clinical Medical Assistant

# **Diagnostic Services**

### EKG/ECG Technician

Due to an aging population and advances in medical technology, we will all utilize more medical tests in the future, making this a high-growth career.

Average Salary: \$55K - \$120K\*

# **Required Courses**

#### 11th Grade

### **Medical Diagnostic Technology 1a: Introduction**

Have you ever wondered how a health professional knows how to diagnose an illness? Or what medications to prescribe to a patient depending on the person's body and their signs and symptoms? Learn about different diagnostic technology used and essential body systems and fluids that need to be understood to make an accurate diagnosis of a disease, condition, or illness. This career field is flourishing, and now is the time to be part of it!

Medical Diagnostic Technology 1b: Exploring Systems & Procedures

Our bodies are complex, and when we start feeling ill, a doctor or specialist must analyze and diagnose what could be wrong. Learn about different diagnostic technology, procedures, essential body systems, and fluids that need to be understood to make an accurate diagnosis of a disease, condition, or illness. This career field is flourishing, and now is the time to be part of it!

#### 12th Grade

#### **EKG Technician 1a: Introduction**

Our hearts are essential to our survival. And EKG technicians play an important role in administering tests and evaluating data given by the electrocardiogram (EKG) to treat patients effectively. Explore the cardiovascular system and its anatomy, and its role in our body, health, and lives. If you're a people person and want to work in healthcare, build the knowledge and skill base to prepare you for a cardiovascular career.

### **EKG Technician 1b: Analysis and Response**

Does the thought of becoming an EKG Technician still make your heart skip a beat? Continue your journey through the peaks and valleys of EKG waves and really dig into the details of the cardiac code to fulfill your ultimate goal: saving lives! This course will prepare you to interpret different EKG waves, how to spot wave abnormalities, how to differentiate between different disorders, and how to treat those disorders. Let's get ready to continue your adventure into the world of cardiology and a possible career as an EKG Technician!

#### Certifications

Mid-pathway Certifications:

- NHSA
- NCHSE Human Structure, Functions, Disease (A)
- NCHSE Human Structure, Functions, Disease (B)
- NCHSE National Health Science Standards
- NCHSE Foundation of Healthcare Professions

#### **Industry Certification**

- NCET National Certified ECG Technician
- NHA Certified EKG Technician

### Medical Lab Assistant

The high growth outlook of this career is fuelled by the aging baby-boomer population and increased demand for medical services.

Average Salary: \$55K – \$120K\*

# **Required Courses**

11th Grade

**Medical Lab Assisting 1a: Introduction** 

Getting to the root of medical issues and uncovering ailments is the core of the medical field. Are you drawn to the idea of being part of a team that helps identify diseases and health-related issues? Then the role of a medical lab assistant may be for you! In this course, you will learn what it takes to become a skilled medical lab assistant including understanding medical ethics, communicating with patients, performing blood draws and managing specimens, lab safety, and potential career paths! Grab your lab coat and latex gloves, and let's draw some new knowledge to help others!

### Medical Lab Assisting 1b: Clinical Lab Safety & Procedures

You've pulled back the patient curtain and have learned the basics of the world of a medical assistant. Now, it's time to dig deeper and peer into the anatomy of the role so you can determine which type of medical assistant best suits you. In this course, you will learn more about patient care and procedures, testing and care coordination, pharmacology and safety, reimbursement, and the law. You will also narrow your own areas of interest, research organizations to shadow, and ultimately prepare for certification. Throw that curtain wide open, and let's continue the pursuit of a medical assistant!

#### 12th Grade

Medical Microbiology 1a

Coming soon.

**Medical Microbiology 1b** 

Coming soon.

### Certifications

Mid-pathway Certifications:

- NHSA
- NCHSE Human Structure, Functions, Disease (A)
- NCHSE Human Structure, Functions, Disease (B)
- NCHSE National Health Science Standards
- NCHSE Foundation of Healthcare Professions

#### **Industry Certification**

• American Society for Clinical Pathology: Medical Lab Assistant

# **Biotechnology Research & Development**

### Biotechnician

This cutting-edge occupation combines biology and chemistry with technology to create improvements in our lives and in the world around us through the manipulation of living things.

Average Salary: \$40K - \$50K\*

11th Grade

#### **Biotechnician 1a: Introduction**

There are so many mysteries that need unraveling in the world today that can help us grow better crops, cure diseases, combat pollution, solve crimes, and so much more. If you love the idea of solving problems to make the world a better place, a career as a biotechnician may be for you. In this course, you'll learn the basics of lab safety, how to perform tasks crucial to experimentation, biological basics, and about the exciting careers available in the field of biotechnology. Not all heroes wear capes. Some wear lab coats. Grab yours and let's get started!

### **Biotechnician 1b: Advancements in Biotechnology**

You've scratched the genetic surface of a biotechnician's world, but now, we're going to dive deeper into mankind's future. In this course, you'll explore essential topics that structure the reality of biotechnology such as the role genetics and epigenetics play in influencing human traits, the creation and purpose of recombinant DNA, and how the human immune response can be tweaked to fight disease. You'll also explore GMO's and biofuels and how an idea becomes reality in the biotech industry. Let's continue learning about how you can change the world in a role as a biotechnician.

12th Grade

#### Biotechnician 2a

Coming soon.

#### Biotechnician 2b

Coming soon.

#### Mid-pathway Certifications:

- NHSA (National Health Science Assessments)
- NCHSE Human Structure, Functions, Disease (A)
- NCHSE Human Structure, Functions, Disease (B)
- NCHSE National Health Science Standards
- NCHSE Foundation of Healthcare Professions

#### Industry Certification

Biotechnician Assistant Credentialing Exam (BACE)

STATEMENT OF NON-DISCRIMINATION: The Hanford Joint Union High School District (HJUHSD) prohibits discrimination, harassment, intimidation and bullying on the basis of actual or perceived characteristics including: physical or mental disability, genetic information, gender, gender identity, gender expression, nationality, race or ethnicity, color, ancestry, age, marital or parental status, religion, sex, sexual orientation, and/or association with a person or group with one or more of these actual or perceived characteristics, in any HJUHSD program or activity, which is funded directly by, or that receives or benefits from any state financial assistance, including in its educational programs, activities, or employment policies, as required by state and federal law. (See, e.g., Title VI of the Civil Rights Act of 1964; Title IX of the 1972 Educational Amendments; Section 504 of the Rehabilitation Act of 1973; Age Discrimination Act of 1975; EC §§ 200, 220; Government Code § 11135.) Inquiries regarding compliance with applicable state and federal anti-discrimination statutes may be directed to Assistant Superintendent - Administrative Services, 823 W. Lacey Blvd., Hanford CA. 93230, the Director of the Office of Civil Rights, Department of Education, Washington, D.C. The lack of English language skills will not be a barrier to the admission and participation in HJUHSD programs. (P.L. 92-318; 34 CFR 106.9) A copy of the District's Uniform Complaint Policy is available at <a href="www.hjuhsd.org">www.hjuhsd.org</a> and/or 823 W. Lacey Blvd., Hanford, California. The District's Title IX Coordinator is: Ward Whaley, Assistant Superintendent - Administrative Services, 823 W. Lacey Blvd., Hanford CA. 93230. Contact information is <a href="www.hjuhsd.org">www.hjuhsd.org</a> and/or (559)583-5901 extension 3126. The District's 504 Coordinator is: Janice Ede, Director of Student Services, 823 W. Lacey Blvd., Hanford CA. 93230. Contact information is jede@hjuhsd.org</a> and/or (559)583-5901, extension 3117.