

# Scientific Research & Design/Patient Care Technician

Ben Barber Innovation Academy  
Mansfield Independent School District  
PEIMS 13020510 Clinical Skills

1 <sup>st</sup> /4 <sup>th</sup> Grading Period	2 <sup>nd</sup> /5 <sup>th</sup> Grading Period	3 <sup>rd</sup> /6 <sup>th</sup> Grading Period
Domain II Compliance, Safety & Professional Responsibility – Role of PCT(s), Workplace Safety, Patient Safety, Protecting Patient’s Rights, & Communication	Domain I Patient Care – Sterile & Aseptic Dressings, Ostomy Care, & Skin Care	Domain IV Phlebotomy – Phlebotomy Basics, Dermal Punctures, Venipuncture, Nonblood Specimens, Blood Culture Collection, Adverse Reactions to Blood Collection, Specimen Handling & Transport, Quality Control, Preanalytical Errors, & Chain of Custody Guidelines
Domain III Infection Control – Medical & Surgical Asepsis, Disease Transmission, PPE, & Types of Precautions	Domain III Infection Control – Bloodborne Pathogens Standard, Equipment Sanitization, Disinfection & Sterilization, Exposure Control Plan, & Biohazard Material Disposal	Domain V EKG(s) – Basic Anatomy & Physiology of the Heart, EKG Acquisition, Patient Preparation, Electrode Application & Lead Attachment, Cardiopulmonary Compromise & Other Adverse Effects, Identification and Resolution of Artifacts, Heart Rhythm, Intervals & Waveforms, Dysrhythmias, & Ischemia, Injury, and Infarction
Domain I Patient Care – Functional Limitations; Ambulation, Transfers, & Transports; First Aid & CPR; Reporting Information & Rounding, Five Rights of Delegation, & Prioritizing Patient Care	Domain I Patient Care – Body Systems, Disease Processes, Basic Patient Care, Weighing Patients, Emotional Support, Equipment, Removing Peripheral IV Catheters, Immobility Splints, Compression Devices, Respiratory Care	Domain I Patient Care – Hospice & Postmortem Care

**Course Description:** This course is offered for students in 11<sup>th</sup> and 12<sup>th</sup> grades. There is a \$25 fee required, which must be paid at the beginning of the semester. Scientific Research & Design/PCT (aka Health Science Clinical Skills) is an 18-week course designed to give students the opportunity to achieve competency in five domains needed to achieve a Patient Care Technician certification: patient care, compliance, safety & professional responsibility, infection control, phlebotomy and EKG. Students will have hands-on experiences for continued knowledge and skill development in a laboratory setting. The student will have the opportunity to observe several disciplines in an acute care setting, apply the knowledge from the course, and be better prepared to focus on a more specific career pathway (PCI) upon successfully passing the certification exam. The course will be taught by different methodologies, including pre-employment laboratory, clinical rotation, and classroom lecture. Students will average one clinical rotation every other week; the remaining time will be spent in the classroom and our simulated patient care lab. All clinical rotations will take place at Kindred Hospital, Mansfield beginning approximately week 6. In the clinical labs and clinical rotations, students will focus on patient care skills, diagnostic and treatment procedures, documentation and information management, communication, and application of their prior cumulative knowledge related to health science courses (for example: Med. Term, PHS, A&P...). Students are encouraged to participate in Skills USA through M<sup>2</sup>, which is a co-curricular youth organization that correlates with the Health Science curriculum. Currently, Skills USA Health Science officer elections occur at the beginning of the spring semester. This is subject to change pending approval by campus administration.

**Instructor:** Patricia Johnson, MHA, DC

**Room** 204 A

**Contact Information:**

Email : [patriciajohnson@misdmail.org](mailto:patriciajohnson@misdmail.org)

Phone: Campus (682) 314-1600 (*not monitored on a regular basis*)

**Tutorials:** Conference TBA

Tutoring by appointment Wednesday and/or Thursday 1445 - 1515

**Textbook:** (*some curriculum materials will be posted in google classroom*)

**Diversified Health Occupations** (6<sup>th</sup> Ed.)(Simmers)(Mosby/Elsevier)  
**Materials to be handed out by instructor** (*most handouts will be posted in Google Classroom*)  
**Kaduceus PCT online curriculum** *login for online access soon to come*  
**Advanced Skills for Health Care Providers 2<sup>nd</sup> ed.**  
**American Heart Association BLS/Health Care Provider CPR**

**Resource Websites:**

[www.kaduceusinc.com](http://www.kaduceusinc.com)  
<http://www.skillsusatx.org/>  
[www.WebMD.com](http://www.WebMD.com)  
<http://www.easybib.com/>  
[www.anatomyandphysiology.com](http://www.anatomyandphysiology.com)  
<https://www.skillsusa.org/>  
[www.cdc.gov](http://www.cdc.gov)  
[www.mayoclinic.com](http://www.mayoclinic.com)  
[www.medlineplus.gov](http://www.medlineplus.gov)

**Ongoing Current Event Resources:** (*These are available as free apps for the iPad*)

**USA Today**  
**CBS News Health watch** <http://www.cbsnews.com> – click on “Health”

**Apps your student should add to his/her iPad:**

***Google Drive***  
***Google Classroom*** (class materials/assignments)

**Credits:** Students will earn 1 unit of credit for this class. Weighted credit is not offered for this course.

**Course Calendar/Schedule: (see top of page)**

**Course Schedule: (The schedule is tentative and subject to change due to progress within the class and circumstances outside the classroom) See scope & sequence above. Plans/assignments/due dates will be posted in Google Classroom and the Kaduceus website.**

**Certifications: BLS/CPR**

Students should have already obtained Basic Life Support CPR certification for healthcare providers through the American Heart Association in Health Science Theory. If a student did not take advantage of this opportunity, they will need to get the certification on their own time prior to rotations or participate in training with another Theory class until the requirements have been met. Any work missed in class will be homework and must be turned in the following class block. To receive CPR certification, students must demonstrate CPR/AED skills successfully (for adult, child, & infant) without any assistance, hints, or prompting from the instructor. Students must also score 84% or higher on the written exam which measures the mastery of cognitive skills. The test must be taken without using the student manual or any other resource for help (closed-book test). This certification is offered in lower-level courses at no cost to the student. There is no internship/externship requirement associated with this certification but class attendance is critical for successful completion of the course and certification acquisition. The renewal of this certification may be offered in some upper level health science courses (CNA, Pharmacy Tech., and Emergency Medical Technician).

**CPCT**

Students are expected to sit for the CPCT exam. In order to become certified as a Patient Care Technician students must successfully complete the required curriculum, demonstrate competency of skills, demonstrate professionalism in the clinical and laboratory setting, and comply with attendance requirements. The cost of the exam is \$155.00. The district will pay for the first test attempt provided the student has passed the practice test and has an average of

80% or higher in this class at the time of testing. If a student does not meet this requirement it is the responsibility of the student and parent to pay for the cost of the test. Students must be 17 years of age to sit for the certification exam. Once a student has successfully passed the certification exam, they may acquire a provisional certification (good for 1 year) prior to graduation and may apply for a standard certification upon graduation and submission of diploma and official transcript.

### **Course Policies and Class Expectations:**

1. **Timeliness:** When the bell rings, be in your seat and begin the “STAT Start Up”. We will begin promptly! The school has a zero tolerance for tardiness and it will affect your Employability grade. (*Official entry is when you have signed in*).
2. **Courteousness:** Show respect to others. Once class begins, talking should only be to answer a question or participate in class discussion or group work. We will have many visitors during the year, please be polite, respectful, and courteous. Texting, messaging, or game playing once class has begun will be considered disrespectful and discourteous behavior and will result in points being deducted from your grade.
3. **Preparedness:** When you come to this class, plan ahead and have everything you will need. Bring your iPad or laptop, paper and pen to take notes, etc. Every day you will have a warm-up. The expectation is for you to start the warm-up upon signing in and taking a seat.
4. **Academia:** *You have chosen to be here* as part of this Program of Study (POS). I will treat you as professionals. I expect professionalism in return. With this in mind, **Academic Dishonesty** will not be tolerated. Plagiarism or cheating will result in a grade of zero.

#### **Daily Work**

- Every Offense
  - Academic and Disciplinary Consequences
  - Assign grade of zero
  - Write a referral
  - Teacher contacts parents
  - Consequence from administrator would be a minimum of AC placement

#### **Exams or Other Major Assessments**

- Every Offense
  - Academic and Disciplinary Consequences
  - Assign grade of zero
  - Write a referral
  - Teacher contacts parents
  - Consequence from administrator would be a minimum of AC placement
  - An alternative exam or major assessment can be completed for a maximum grade of 70%
  - Academic Associate is notified and will schedule a meeting with student, parent and teacher

5. **Electronics/Food:** Any electronics, other than MISD issued, should be silent and not in use, unless otherwise instructed. Students are encouraged to place their phones up front. Please refrain from use of your cell phone or electronic music devices, unless the instructor gives you permission to use them. Food and drinks are not allowed near the computers. Plan your time to complete eating prior to arrival!

**General Requirements:** This course is recommended for students in grade 11-12. Our clinical partners will not allow younger students to attend clinical rotations. The prerequisites for the course are Biology, Chemistry, and Health Science Theory. (**Health is not a substitute!**) *It is beneficial for students to have also taken Medical Terminology, Principles of Health Science, and Anatomy & Physiology.*

**Clinical Transportation:** Transportation to/from clinical rotations will be provided through MISD Transportation. You must ride the bus to and from clinical! If your parent will need to pick you up from the clinical site, please have your parent inform me in advance via phone or email. I must know who will be picking up the student, and will arrange with you where to meet your student at time agreed upon. The parent should be prepared to show a photo ID. Unfortunately, I am not able to allow you to drop your student at the clinical site late.

**Clinical Requirements:** Students will be required to have current CPR certification at the Health Care Provider level, as well as current immunizations, including current influenza vaccination. Students will be required to submit to TB screening twice prior to beginning clinical rotations. *Even with evidence of screening or BCG immunization, students will be required to submit to the first Montoux skin test prior to orientation.* All students will receive urine drug screening within 30 days prior to beginning clinical rotations, and at the discretion of the clinical facility at any time during clinical rotations. TB testing and Urine Drug Screening will be provided by the clinical site. A portion of the class activity fee will cover the expense of these tests. All students will be submitted to a criminal background check by the clinical facility.

**Materials Needed:** Black ink pens (*no other color will be accepted for any assignment!*)

Binder or folder and spiral (for in class use)

Blue or Black Pocket folder with brads (for hospital use)

1 Highlighter (any color)

1 set of Scrubs (pewter top and black pants) and appropriate shoes for clinical (***see Uniform below***)

1 wristwatch with a (preferably with a second hand)

*\*Specific units covered in the curriculum may require other supplies as appropriate.*

**Course Objectives:** To achieve competency in five domains needed to achieve a Patient Care Technician certification: patient care, compliance, safety & professional responsibility, infection control, phlebotomy and EKG. Students will have hands-on experiences for continued knowledge and skill development in a laboratory setting.

### **Grades:**

The following point system will be used to determine your grade:

Daily/Quizzes	20%
Labs, Mentor Evaluations	30%
Major Grades	50%

20% of your grade will be the final. The final will be comprehensive and is required to include an essay portion per MISD policy.

### **Semester Exams:**

Each semester, specific exam schedules are designated for MISD high school and dual credit courses. These schedules must be followed. Neither mid-term nor final exams are given early. If a student is absent on the day of an exam he/she will take the exam at a date/time designated by the school.

**Exams and Projects:** There will be frequent skill-demonstration, quizzes and exams, and possibly an Exam/Project for each topic covered. All topics and units are comprehensive, so anything previously covered is still fair game! *Your goal is to master the content in working knowledge, not memorize it just enough for an exam!* Exams/Projects

are designed to demonstrate mastery of content and will be an application of knowledge or skill by demonstration. There will be at least 1 group project this semester (one will align with *Scientific Research & Design TEKS*), in addition students will also be expected to accurately demonstrate skills in a laboratory setting weekly. Students will receive a professionalism grade (mentor eval.) weekly once hospital rotations begin. Skills will be graded on participation, accuracy and attention to detail, along with ongoing practicum format! Projects will be graded according to the rubric provided with each assignment. Students will receive a grade for pre-clinical preparation, for each clinical day. Students may have current event assignments and/or professional journal assignments each 6 weeks.

**Labs:** We will perform several physiologic labs over the semester, exploring the meanings of the various bits of information you attain when doing a patient examination. We will learn to interpret these signs, and recognize symptoms to better understand disease and conditions that affect or alter homeostasis.

**Projects:** There will be at least one group project for the semester. You will receive a criteria sheet for each project to let you know what is expected of you and how the point values will be allotted. Please follow the criteria closely and turn the criteria sheet in as the top sheet for the project. Projects may or may not involve class time, library time or computer lab time. Please plan to utilize your time well, plan for having to manage outside of class and meet the due date. This includes being able to communicate and coordinate with your project partners.

**Make-up work:**

- The teacher may assign the student makeup work based on the instructional objectives for the subject or course and the needs of the individual student in mastering the essential knowledge and skills or in meeting subject or course requirements.
- A student will be responsible for obtaining and completing the makeup work in a satisfactory manner and within the time specified by the teacher. When absent, the student is afforded the number of days missed plus one additional day to turn in makeup work. [A/B Block Example: A student misses Monday and Tuesday of the week and he/she returns on Wednesday of that same week. Student work from Monday's absence is considered late after Friday, and student work from Tuesday's absent is considered late after the following Monday.]
- A student who does not make up assigned work within the time allotted by the teacher will receive a grade of zero for the assignment.
- A student is encouraged to speak with his/her teacher if the student knows of an absence ahead of time, including absences for extracurricular activities, so that the teacher and student may plan any work that can be completed before or shortly after the absence.
- A student will be permitted to make up tests and turn in projects due in any class missed because of absence. Teachers may assign a late penalty to any long-term project in accordance with time lines approved by the principal and previously communicated to students.
- See UIL Eligibility ("No Pass/No Play") guidelines for additional information related to grades and UIL Eligibility.

**Retake Policy:**

- Students who fail a major test/assessment (below 70%) will be allowed to retake or correct up to a 70% grade. This does not include semester examinations.
- Students are expected to make arrangements with the teacher to retake or correct a major test/assessment.
- Students are encouraged to participate in tutoring opportunities before retaking a test.
- Each teacher will communicate routine requirements for retakes and corrections in his/her course syllabus.
- All retakes or corrections must be completed prior to the end of each six week grading period unless the student is afforded time, after the six week grading period, as a result of the district's absent/make-up guidelines.
- See UIL Eligibility ("No Pass/No Play") guidelines for additional information related to grades and UIL Eligibility.

**Late Work:**

- Teacher designates due date and time for assignment (Beginning of class period, End of class period, designated time of day)

- If student fails to meet the due date and time, then the student has till the next class period (next A day or B day) to turn in assignment to be considered one day late.
- Students will be assessed a penalty of 30% points for up to one class period late.
- Score of a zero may be given for work turned in after one day late.

**Class work:** Again, the class is structured to teach time management. Use your time well. You are responsible for how you use the time. You are responsible for learning the material. Pay attention, listen, and participate. The majority of the graded assignments will be projects, both group and individual. Use the allotted class time well. While in class, Health Science is the only subject you are allowed to work on.

**Standards for work:** All assignments should be neatly written in **black ink**, or typewritten. College rule notebook paper is acceptable. All assignments must be legible and neat. ***(if I cannot read it, I reserve the right to decline accepting it.)*** Spelling and Grammar will be evaluated. Online assignments should be uploaded into google drive, all other assignments should be turned in to me using the allocated trays on the bookshelf at the front of the room.

**Clinical Rotations:** Clinical rotations will be in the Kindred Hospital, Mansfield. Specific information is provided in the Clinical Rotation packet. All students are required to have a current, AHA BLS for Health Care Providers CPR certification.

1. All students must pay the \$25 course fee prior to testing/ hospital rotations. A receipt from the Bookkeeper here at Ben Barber is required as proof of payment.
2. All students must provide proof of current immunizations, including Tdap, MMR, Varicella, Hepatitis and Influenza.
3. Students will be required to submit to 1 TB screenings prior to beginning clinical rotations. Students who received BCG will still be required to submit to the initial TB testing, then a chest X-ray. We regret that the chest X-ray will not be a provided service by MISD. If a student has had a TB test done at another facility (within the last 6 months) they must provide written proof. TB screening will be provided in class on dates to be announced. Students not completing these requirements on the dates provided will need to accomplish this prior to being allowed to participate in clinical rotations (on their own time at the facility).
4. Students may be submitted to urine drug screening. Drug screening will be done at an unannounced date, by Huguley Hospital Medical Center.

These requirements are set by our clinical partners and are neither subject to variation nor exception. Any student not having the necessary immunizations or screenings prior to the beginning of clinical rotations will not be allowed to participate until the requirements are met and/or may result in a schedule change.

Students who are absent from clinical must arrange to complete an alternative clinical assignment to recoup the clinical grade, by notifying the instructor **in advance (this is part of the grade)**. If a student is ill (T>100, vomiting, diarrhea, or contagious disease, etc.), he/she must notify the instructor via email before or between 5:30 and 6:30 the morning of clinical. If the student arrives to school unable to attend clinical, and has not made prior notification, as specified above, the instructor will not have adequate time to prepare an alternate assignment and the student will receive a grade of zero for that clinical day. Clinical rotations may include any of the following hospital areas: Emergency Department, Intensive Care, Cardiac Telemetry, Medical Telemetry, Family Centered Care/Women's Services, Medical Day Surgery, Post Anesthesia Care Unit, Respiratory Therapy, Medical Imaging, Phlebotomy lab, Medical Laboratory, Materials Management, and Environmental Services.

Your student may observe or participate in the provision of care to patients, with an assigned and licensed professional, and may experience exposure to invasive procedures, body fluids, and nudity.

If, at any time during a clinical rotation, your student feels faint or dizzy, he/she must inform the assigned staff immediately. **All students should eat breakfast or lunch prior to attending their clinical rotation.** We want each student to maximize their experience as an observer, not as a patient!

**Uniform:** Students will be required to obtain and wear **scrubs (pewter top & black pants)** for clinical. For your convenience, the volunteer organization from Methodist Mansfield Medical Center will be on campus January 13<sup>th</sup> and January 14<sup>th</sup> selling scrubs. Scrubs will cost \$35/set and money must be paid that day. Scrubs may also be purchased at a medical equipment/uniform store, Walmart, or Amazon and cost will vary. A **Ben Barber HST patch** will be issued to each student and must be sewn to the Left sleeve, 1 inch above the hemline of the sleeve. Appropriate, solid color white or black shoes, constructed of an impervious (with minimal small ventilation holes), solid material (leather or plastic), and wearing of socks will be mandatory. Sorry, Crocs or similar type shoes will not be acceptable. These may also be purchased at Walmart for approximately \$20. *Students will be required to have a special BBIA Clinical identification card, to be worn on the upper torso, on their scrubs, secured with a clip, each day while attending clinical rotations.* Clinical IDs will be issued by BBIA and will remain in the classroom when not attending clinical. Any student not wearing appropriate clinical attire and/or identification will not be allowed to participate in clinical, resulting in a grade of zero for the day. Students may have **natural** hair color only. Students may **not** wear polish, gel, dip, or acrylic on their nails. Nails must be kept short (not pass the fingertip) and natural. Students need to wear a wristwatch to keep track of time while in the clinical setting as students will not be allowed to bring cell phones with them to the clinical site.

**Advancement:** Advancement to Clinical Internship or Practicum level courses will be determined by your classroom and clinical participation, course grade, conduct, attendance, attitude, and teacher recommendations.

**Selection Process for Upper Level Courses:** See attached

#### **Classroom Expectations regarding iPads**

- 1) Close all applications on the iPad upon entering the classroom. You may only have open the apps to be used in class during that specific class period. The opening of any additional app including any gaming, messaging or email feature will result in a disciplinary referral.
- 2) iPads need to remain on your desk at all times. When they are not in use, you will need to have them face down in the top right corner.
- 3) iPads need to remain flat on your desk or slightly propped (using the stand) when in use so that your screen can be viewed by me at all times.
- 4) Make sure your device has the sound off. You will be instructed when it is necessary for the sound to be on. In that case, you will be asked to use headphones (see classroom materials).

#### **BYOD**

Mansfield ISD has a BYOD policy in place; however, with access to iPads in the classroom daily, the use of any cellular device is only allowed with permission from the teacher. Having cell phones out in class without permission will result in disciplinary action.

Confirmation of Receipt and Understanding of Syllabus  
And MISD Student Expectations.

*Please return with all signatures and information by the second day of class.*

Student Name \_\_\_\_\_ Student ID \_\_\_\_\_

Parent/Guardian Name(s) \_\_\_\_\_ , \_\_\_\_\_

Home Campus:

Frontier HS Lake Ridge HS Legacy HS Mansfield HS Summit HS Timberview HS

*(Please circle applicable campus)*

*Please sign and return this form to the instructor. Signatures will serve as acknowledgement that both students and parents have read and understand the course syllabus, and have received the student handbook for their home campus.*

*I, the undersigned, have received and read the course syllabus and student handbook for my home campus.*

*I understand that MISD Health Science Technology Education is held to standards and expectations in the clinical setting, to maintain the integrity of the hospital and program, as well as to ensure the safety of the patients, staff, and students.*

*I understand that my student will be subject to a Criminal Background Check and Urine Drug Screen.*

*I understand that my student will be required to submit to a Manteaux skin TB test twice, unless the first is positive for TB exposure. I further understand that it will be my financial responsibility to obtain a chest X-ray to confirm absence of TB, should a positive skin test occur.*

*I understand that I must provide proof of currency for immunizations, including MMR, Tdap, Varicella, Hepatitis, and influenza prior to my student being allowed to attend hospital orientation.*

*I understand and agree to the uniform requirements outlined in the syllabus.*

*My student has my permission participate in all areas of the clinical rotations, to be assigned at the discretion of the instructor.*

*My student has my permission to be transported to and from clinical rotations by MISD bus transportation.*

*My student has my permission to communicate with the instructor by phone, text, and email, as necessary for the duration of the course.*

Date \_\_\_\_\_ Parent Names and Signatures \_\_\_\_\_

Preferred Emails: \_\_\_\_\_

Parent Daytime Phone: \_\_\_\_\_

Date \_\_\_\_\_ Student Signature \_\_\_\_\_

Student Email: \_\_\_\_\_ Student Cell Phone: \_\_\_\_\_

Parents: Email is the best way to communicate concerns regarding your student ([patriciajohnson@misdmail.org](mailto:patriciajohnson@misdmail.org)).

**Please include the name of your student as the heading for the email.**