

**Carver Career and Technical Education Center
Honors Therapeutic Service Syllabus**

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| School Year | 2022-2023 |
| School Phone | 304-348-1965 ext. 111 |
| Contact Times | 730am-330pm(730-9,11-1,300-330) |
| Instructor | Michelle Harper, RN,BSN |
| Instructor Email | msharper@mail.kana.k12.wv.us |
| Class Hours | Am: 9-11, PM 12:30-2:30 |

Class Description

The Therapeutic Service Program is designed to prepare students for a career in the healthcare field. Students may immediately enter the field of Phlebotomy, EKG Technician, or Patient Care Technician upon graduation, or they may choose to continue their education in some aspect of the medical field. The knowledge and certifications obtained in this class will help to build the student's college and/or job portfolio. Students will engage in a Simulated Workplace style of learning which would mirror a Clinic-Setting. Students will hold job titles and will be held to simulated work-place standards. Students will learn the technical skills, as well as the professional aspect of holding a job in the medical field.

The honors component of this class will be obtained by completing more detailed and college-prep type work along with a more in-depth knowledge of the hands-on skills learned in the Course. Strict guidelines will be adhered to in order to obtain the honors credit. If at any time the student does not meet the required grades/attendance/behavioral component of the honors course, the student can still complete the course but will only be eligible to receive the traditional credit.

Concentration Courses ** A minimum course completion score of 80% is required to progress to the next course**

0711 Foundations of Health Science (1st Year, 1st 9 Weeks)

Text: Simmers, Louise, Diversified Health Occupations (7th Edition)

HealthCenter 21: a digital curriculum in which the student learns through online lessons, quizzes and tests

Instructional focus is basic medical terminology, human growth and development, nutrition, health care delivery systems, and health maintenance practices. Students also learn emergency response procedures and obtain certification in First Aid and CPR

- Honors Credit will be obtained in this course by completing the work for the traditional class and: 1) completing a presentation on the history of healthcare and how it relates/differs from modern-day medicine 2) Presentation on effective communication in the Healthcare Setting (using the communication cycle) 3) Write a paper describing in detail the difference in CPR delivery for adults/children/infants and explain how access to defibrillators in public places effects survival rates in cases of sudden cardiac arrest. 4) The students will have no behavioral write-ups in class. The student will have absences of 3 or less and must have a parent or Physician excuse for each absence. (In case of emergency, cases can be individually assessed by the teacher).

0715 Advanced Principles of Health Sciences. (1st Year, 4th 9 Weeks)

Text: Simmers, Louise, Diversified Health Occupations (7th Edition)

HealthCenter 21: Applied Science digital curriculum

Instructional content will focus on healthcare safety, environmental safety, legal and ethical principles, HIPAA and Occupational Safety, and medical mathematics. Also medical terminology reinforcement and diseases and disorders. Students also will become certified in OSHA 10 during this course. Technical skills learned are Vital Signs- how to measure and what the correct parameters should be, and how to maintain aseptic and sterile techniques.

- Honors credit will be obtained in this course by 1) completing a paper on each specific Vital Sign (5 total papers- Temperature, Pulse, Respiration, Blood Pressure and Pulse Oximetry. What is the normal range, what does the Vital Sign indicate, what causes high readings, what causes low readings and how to obtain and assess each one)? 2) The student will complete a presentation to the class on the correct order to don and doff Personal Protective Equipment and address scenarios in which PPE should be worn. 3) Students will complete a presentation on the Cycle of Infection including the different pathogens that can be spread and how to break the chain of infection at each link. 4) Students will write a paper and present their findings on the topic of Disease Processes. They will research Infectious, Acute, Chronic and Degenerative Diseases and compare the onset, symptoms, treatments and recovery/mortality. 5) Students will have no behavioral write-ups during this course and will have less than 3 absences with parent or Physician notes obtained upon the absences. (Cases of emergencies will be individually assessed by the instructor).

0789 Clinical Specialty I (Phlebotomy) (2nd Year 1st 9 Weeks)

Text: Kalanick, Kathryn, A. Phlebotomy Technician Specialist (2nd edition)

HealthCenter 21: an online applied science digital curriculum

Instruction in this class will focus on learning lab safety, professionalism, legal and ethical issues and learning to perform the correct technical Phlebotomy Skills. **Students are required to obtain 10 successful capillary punctures and 30 successful venipunctures.** Students must successfully complete the lab safety procedures the instructor provides in order to begin practicing capillary or venipunctures. Students will be given a lab safety test prior to participating in the Phlebotomy lab. Upon completion of this class and the required punctures, students will have the opportunity to take a Certification Exam through the National Healthcareer Association.

- Honors Credit will be obtained in this course by 1) completing a presentation that addresses the Order of Draw (Capillary and Venipuncture) including the additive in each tube and lab tests that can be performed based on tube top color. Students will explain the diagnostic decision making in using certain tubes 2) Students will list in order the correct steps for capillary and venipuncture procedures. 3) Students will demonstrate the correct procedure of capillary and venipuncture to the teacher on the Phlebotomy Arm 4) students will work together to complete a Safety Handbook for the Phlebotomy lab that includes correct procedures for asepsis, needle safety, and correct attire to be worn/utilized in the Phlebotomy Lab. 5) Students will complete a research paper regarding blood donations. They will describe in detail the process of Autologous Transfusion, Therapeutic Phlebotomy, and describe the process of Type and Cross Match and which types of blood can be donated and received by patients. 6) Students

must learn the formula for specific blood volume calculations in newborns to prevent iatrogenic Anemia.

7) Students will have no behavioral write-ups during this course and will have less than 3 absences with parent or Physician notes obtained upon the absences. (Cases of emergencies will be individually assessed by the instructor).

0790 Clinical Specialty II (EKG Technician) (2nd Year 3rd 9 Weeks)

Text: Cathy D Soto, PhD. Essentials of Electrocardiography

HealthCenter 21: an online applied science digital curriculum

Instruction in this class focuses on basic operation of a 12-lead EKG machine, Holter Monitor and other cardiac testing as well as cardiac monitoring. Students will learn cardiac anatomy and physiology and will learn how to interpret basic EKG rhythms and how to treat basic abnormal and life-threatening heart rhythms. **Students are required to complete 10 live EKG readings in order to complete this class and may then take the Certification Exam through the National Healthcareer Association.**

- Honors Credit can be obtained in this course by 1) completing a presentation on the Anatomy and Physiology along with the Electrical Conduction System of the heart. 2) students will complete a paper regarding rhythms that originate in the Sinus Node, the Atrioventricular Node (AV junction) of the heart, the Atrium of the heart, and the Ventricles of the Heart and what the appearance of these rhythms would look like 3) students will complete a paper regarding Myocardial damage including how it is identified and how to differentiate Myocardial Injury, Ischemia and Infarction. 4) Demonstrate adequate mathematical skills in calculating heart rates using 3 different methods- A) the 60-second method, B) the 1500 method and C) the 300 method or the sequence method as evidenced by heart rate rhythm strip worksheets. 5) Students will complete a project on Intervals and Waveforms that involves defining the P, QRS and T waves and what each represents along with how to calculate the correct measurements for the PR Interval, QRS Interval and the ST segments. 7) Students will show correct formulas for calculating the time and voltage of each waveform on the EKG grid. 8) Students will have no behavioral write-ups during this course and will have less than 3 absences with parent or Physician notes obtained upon the absences. (Cases of emergencies will be individually assessed by the instructor).

Elective Courses (1st Year 2nd 9 Weeks)

1060 Essential of Addiction and Prevention

This course focuses on the science of addiction and strategies for prevention. Students learn about the history of addictive substances, the worldwide use of them, the harmful effects of them, the reversal agents for substances that are reversible and focus on prevention efforts of those substances at different age levels. Assessments in this course are chapter reviews, tests and group projects. Students receive Narcan training during this class if able to arrange.

- Honors credit may be obtained in this course by completing a project related to substance use prevention and how it can benefit the community. The student will research a substance that they deem popular among their peers and come up with strategies to prevent use of the substance in the community. The student may also do a presentation to the class on this substance and their prevention strategies. Students will have no behavioral write-ups during this course and will have less than 3 absences with parent or Physician notes obtained upon the absences. (Cases of emergencies will be individually assessed by the instructor).

0721 Medical Terminology (1st Year 3rd 9 Weeks)

Course instruction focuses on terminology and abbreviations frequently used in the medical field. Students typically form note cards for reference and do chapter reviews specific to body systems. Students are given projects during this course and have chapter tests.

- Honors credit can be obtained in this course by 1) constructing note cards for each prefix, suffix and root word listed in the chapter 2) by selecting a body system and researching it's anatomy, physiology, pathology and common diagnostic tests used to diagnose abnormalities within the system and presenting to the class. 3) recognizing and memorizing commonly used abbreviations in the healthcare field. 4) Students will have no behavioral write-ups during this course and will have less than 3 absences with parent or Physician notes obtained upon the absences. (Cases of emergencies will be individually assessed by the instructor).

Elective Courses

0716 Body Structures and Functions (2nd year 2nd 9 Weeks)

Course instruction focuses on the structure and function of each system in the human body. Additional instructional components include concepts that pertain to the body, applicable medical terminology, and the pathophysiology common to each system. Students utilize problem-solving techniques and participate in hands-on activities to develop and understanding of course concepts. Students design body structures out of clay to represent the anatomy of the body system.

- Honors Credit can be obtained in this course by 1) building each body system anatomically correct out of clay or produce a visual representation as determined by the teacher 2) indicating the physiology of each structure of each system on slides to present to the class along with Diagnostic Tests that can be done to diagnose abnormalities within that specific body system while also recognizing the pathology and treatments within that system also. 3) Students will complete a paper regarding the body system of their choice- what are the important structures, how does the system function, what diseases are prevalent within that system, what treatments are available upon that particular body system failure, and what types of prevention can a person do to keep that system healthy. 4) Students will have no behavioral write-ups during this course and will have less than 3 absences with parent or Physician notes obtained upon the absences. (Cases of emergencies will be individually assessed by the instructor).

0730 Health Science Clinical Experience (2nd Year 4th 9 Weeks)

Text- NHA Review Material for Phlebotomy Technician, EKG Technician, and/or Patient Care Technician may be reviewed during this course to review for Certification Exams desired by the students.

This course is designed for clinical specialization experience. The student is placed in the healthcare setting as closely related to their field of interest as possible. CAMC Memorial has specific departments that are willing to have students to shadow and practice skills learned in class. Focus is on punctuality, professionalism, attendance and eagerness to learn and help. Students are responsible to provide their own transportation to their clinical site. Students must have a negative drug test prior to attending clinicals. If the student does not take the drug test that Carver Career Center offers, they may obtain one from their family Physician or reputable company. If the student does not take a drug test, they will be provided with book work for this 9

weeks and will not be permitted to attend Health Care Clinicals. Principal and Teacher discretion will be used in this situation. Students will not be allowed to attend a Clinical if it is determined that they have not shown maturity and readiness in the classroom and laboratory areas. Students must have obtained a grade of B or better in the required courses to attend clinicals. The student is provided a preceptor at the site who will sign the time and date of the student clinicals. Students must turn in the necessary paperwork given to them weekly and document their experiences. Students must complete 80 hours of clinical rotation for class completion unless extenuating circumstances occur, and the instructor may give additional clinical-type assignments.

- Honors credit will be obtained in this course by completing a project based on a patient-situation that has been presented to the student during their clinical experience. The student will focus on the patient diagnosis, treatment and prognosis and will construct a plan of care for this patient based on these things. The student will present their Patient Scenario to the Class while following HIPAA regulations.

Honors Credit Specific Expectation for Therapeutic Services:

- The student will meet with the instructor to review the expectations for the Honors Credit within the Course.
- The student will complete additional assignments as explained in the syllabus.
- If the student fails to complete the additional assignments in a timely manner but achieves the grade in the required courses along with maintains good attendance, they can still receive traditional credit for taking the course, but will not receive honors credit
- The student will be eligible to take the National Certification Exams with honors or traditional credit from the course
- The student will have no disciplinary action against them at Carver Career Center or their home school.
- The student may be expected to hold management positions within the Simulated Workplace in the class.

Completion Certificates:

- Upon the successful completion of the required and elective courses listed in the syllabus, the student will be eligible to receive a Therapeutic Service Completion Certificate and also an Advanced Medical Preparedness Certificate.
- If the student does not make the required grade for the course or maintain the necessary attendance for the program, they will not be eligible to receive the Certificate upon completion of the courses.

Grade Scale:

As defined by Kanawha County Schools the grade scale is as follows:

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| 90-100 | A | Mastery |
| 80-89 | B | Above Average |
| 70-79 | C | Average |
| 60-69 | D | Below Average |
| 0-59 | F | Poor Work |

Classroom Rules of Conduct:

- Always behave professionally and respectfully
- Be punctual
- Be prepared (this includes having a charged functioning Ipad for class)
- Students are expected to follow simulated workplace protocols and the Student Handbook
- No cell phone use in class
- No cheating, students must do their own work, otherwise, this may result in a zero for an assignment
- Students may have specific seating arrangements
- No bullying whatsoever will be tolerated
- No tobacco product whatsoever in the class (This includes any type of vape)

Laboratory Rules

- Safety is always first
- No food, drink or gum in the lab
- No procedure is performed without supervision from the teacher
- Hard-toe shoes are preferred. NO CROCS with holes or sandals
- Hair should be pulled back away from the face
- Proper scrubs are to be worn in the lab- this includes a scrub top and scrub pants. Certain jackets may be approved by the instructor, long sleeve T-s are permitted under the scrub top.
- Never put anything in your mouth while in the lab
- Proper PPE must be used in the lab. Never leave and return to the lab with PPE on, it must be removed before leaving the lab
- Never recap a contaminated needle
- Properly dispose of all sharps and equipment
- Keep the sharps box stored properly and never use when full
- Report any needle stick immediately to the teacher
- No excessive jewelry in the lab
- Always wear a face shield when splashing of blood/fluids is possible
- Know CPR and First Aid
- Know how to handle a patient who may pass out

Attendance/Makeup work

Due to Simulated Workplace absences should remain only when absolutely necessary. When the student has missed 11 total days in the program, they will at that time be evaluated by the teacher to return to their home school. It is a privilege to attend this program and good attendance is expected in order to maintain the 80% or higher in the required courses. Make up work is the responsibility of the student to obtain. All assignments will be on Schoology. The student may contact the teacher regarding the work, and it will be given to them. Late work will be accepted but full points will not be given.

Drug Screening

All students will be drug tested prior to their Clinical to provide the industry standard drug free work force. It is vital going into the health care setting that we can assure the professionals you will be working for that you are drug-free. Drug testing is done at the school by an outside company. Students who do not take a drug test or provide a negative drug test will not be permitted to attend a Health Care Clinical Rotation. They will be placed on light duty within the lab and will be assigned duties that may include cleaning the lab, stocking supplies, performing inventory, or completing bookwork in place of technical skills practice.

Costs: 1 set of scrubs the first year, an additional set the 2nd year (Approximately 30\$ for a set). Certification review for Phlebotomy/EKG Technician/Patient Care Technician- approximately \$80 each.

Certification Exams Phlebotomy/EKG/ Patient Care Technician- approximately \$110 each

Shoes for practicing in the lab must be solid leather top- no mesh or no crocs with holes and the shoe must have a back. This is for safety reasons- These will be needed First 9 weeks of Senior year. Shoes while attending Health Care Clinical must be clean and professional in appearance. Please contact the teacher if assistance is needed with any of these costs.

Outline of content to be covered during the 2-year program WVEIS Code Course:

Year 1

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|--------|--|
| 0711E1 | Foundations of Health Science (Core) |
| 1060E1 | Essentials of Addiction and Prevention |
| 0721E1 | Medical Terminology |
| 0715E1 | Advanced Principles of Health Science (Core) |

Year 2

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|--------|--|
| 0789E2 | Clinical Specialty I (Phlebotomy) (Core) |
| 0716E2 | Body Structures and Functions |
| 0790E2 | Clinical Specialty II (Electrocardiograph Technician) (Core) |
| 0730E2 | Health Science Clinical Experience |

****Core classes must be passed with a grade of B or higher**

Student and Parent Signature Page
Carver Career Center- Therapeutic Service Honors

I have read the content of this syllabus and understand specifically what is being said and the intent of the syllabus. I am aware of the course content to be covered as well as all the costs involved.

I understand and agree with policies outlined in this syllabus.

Student Signature_____

Parent/guardian Signature_____

Parent/guardian printed name_____

Best contact number for parents:

Mother_____

Father_____

Guardian_____

Parent/guardian work numbers and company name if applicable

Parent's email address:_____