

**CAVIT Medical Science Program/
Two Year 720-Hour Program/
Scope and Sequence**

Semester 1 – 180 Hours

District Pre-Assessment

Unit 1: Orientation

6 Class Hours

- CAVIT Handbook
- Syllabus
- Roles and Responsibilities
- Rules and Procedures

Unit 2: Professional MA/Communications

8 Hours - 6 Classroom, 2 Lab

- MA Responsibilities
- Verbal / Nonverbal Communication

*ADE Standard: 4.1,4.5,5.2,11.1,11.2,11.3,11.4, 11.5, 11.6

*CAC MDA150 #3 Analyze, Apply Communication, MDA151 #4 Analyze, Apply Communication

*Priority Assessments: Ch 2&4 Test, Active Listening Activity Rubric

Unit 3: Infection Control / OSHA Standard

20 Hours: 8 Classroom, 12 Lab

- Infection Process Cycle
- Medical Asepsis
- Gloving and PPE
- Bloodborne Pathogens
- OSHA Standards
- Disease/Disorder

*HOSA Officer Elections, Chapter Meeting

*Work-Based Learning: Simulated Lab Experience

*ADE Standard: 3.1,8.7,10.1,10.2,10.3, 10.4, 10.5,10.6,10.7,10.8,10.9,10.10,10.11,10.12, 10.14,10.15,10.16,10.18,10.19

*CAC MDA116 #1, #2, #2A, #2B, #2C, #3 Medical Terminology - MDA150 #1 Clinical Procedure - MDA150 #2 Apply Microbiology, MDA150 #5 Safety - MDA151 #1 Clinical

Procedures -MDA151 #3 Apply Infection Control, MDA151 #6 Safety and Emergency
*Priority Assessments: Hand Washing Rubric, PPE Rubric, Ch 17 Test

Unit 4: Medical Law and Ethics

10 Hours - 8 Classroom, 2 Lab

- Terms, Rights and Duties
- Medical Law
- Provider Patient Relationship
- Federal & State Laws

*ADE Standard: 4.1,4.2,4.3,4.4,4.5,11.111.2, 11.3,11.4,11.5,11.6

*CAC MDA150 #4 Analyze Medical Law, MDA151 #5 Legal Implications - MDA171 #1E Analyze Medical Law

*Priority Assessments: Ch 3 Test

Unit 5: Front Office Administration

42 Hours - 20 Classroom, 22 Lab

- Medical Records
- Pt Reception
- Telephone Technique
- Scheduling
- Finance, Billing, Collections
- Medical Coding
- Medical Insurance
- Office Management

*HOSA Chapter Meeting

*Work-Based Learning: Simulated Lab Experience

*ADE Standard: 2.1-.5,4.1-.5, 5,5.1-.12, 9.1-.6, 11.6

*CAC MDA150 #1 Clinical Procedures - MDA151 #1 Clinical Procedures, MDA171 1A, 1B, 1C, 1D Administrative Medical Procedures

*Priority Assessments: Ch 38, 39, 41, 42, 46, 49, 47, 48 Quiz, Unit 5 Test

Unit 6: Integumentary System

8 Hours – 2 Classroom, 4 Lab

- Skin Structure

*ADE Standard: 3.1, 13.1

*CAC MDA116 #1, #2, #2A, #2B, #2C, #3

Medical Terminology

*Priority Assessments: Ch 17 Test

Unit 7: Anatomy & Physiology/Terms

10 Hours - 4 Classroom, 6 Lab

- Terminology
- Organ Systems
- Homeostasis
- Anatomic Terms

*ADE Standard: 3.2, 3.2

*CAC MSLO MDA116 #1, #2, #2A, #2B, #2C, #3

Medical Terminology

*Priority Assessments: Ch 5 Test

Unit 8: Musculoskeletal System

10 Hours - 6 Classroom, 4 Lab

- Human Muscle
- Human Skeletal
- Disease/Disorder

*ADE Standard: 3.2, 3.2

*CAC MSLO: MDA116 #1, #2, #2A, #2B, #2C, #3

Medical Terminology

Unit 9: Promote Tissue Healing / Patient Transport

14 Hours - 6 Classroom, 8 Lab

- Apply Hot & Cold Treatment
- Body Mechanics
- Patient Transportation

*HOSA Chapter Meeting

*Work-Based Learning: Simulated Lab Experience

*ADE Standard: 3.1, 3.2, 6.9, 10.1, 10.2, 10.12, 10.16, 11.1, 11.5, 11.6

*CAC MDA150 #1 Clinical Procedures, MDA150 #5 Safety, MDA151 #1 Clinical Procedures, MDA151 #6 Safety and Emergency

*Priority Assessments: Gait Belt Assessment, Assist Patient with Cane, Walker, Crutches, Ch 22 Test

Unit 10: Assist Physician in Exam

12 Hours - 5 Classroom, 7 Lab

- Prep Room, Ht/Wt
- Pt Position
- BMI Calculation

*Work-Based Learning: Simulated Lab Experience

*ADE Standard: 6.1-.10, 8.0, 8.4, 8.5, 10.3, 10.4

*CAC MDA150 #1 Clinical Procedures, MDA151 #1 Clinical Procedures

*Priority Assessments: Position Quiz, Ch 20 Test

Unit 11: Career Display Boards

12 Hours - 2 Classroom, 10 Lab

- Collaboration presentation

*ADE Standard: 11.4, 11.5

*CAC: CSLO #2,3,4 MDA116 #1, #2, #2A, #2B, #2C, #3, Medical Terminology

*Priority Assessments: Presentation w/Rubric

Unit 12: Vital Signs

28 Hours - 13 Classroom, 15 Lab

- Definitions
- VS Temp
- VS Pulse
- VS Respiration
- VS BP
- Pulse Ox

*HOSA Chapter Meeting

*Work-Based Learning: Simulated Lab Experience

*ADE Standard: 6.1-.4, 6.6, 6.10, 8.1, 8.5, 10.1, 10.2, 12.7

*CAC MDA116 #1, #2, #2A, #2B, #2C, #3, Medical Terminology, MDA150 #1 Clinical Procedures, MDA150 #5 Safety, MDA151 #1 Clinical Procedures, MDA151 #6 Safety and Emergency

*Priority Assessments: Skills Assessment: Temp, Pulse, Resp, BP with Rubrics. Ch 19 Test

Semester 2 – 180 Hours

Unit 13: Speaker Week

8 Hours 1 Classroom, 7 Lab

- Invite and Host a Guest Speaker

Unit 14: Hematology/Medical Lab/ Microbiology

24 Hours - 10 Classroom, 14 Lab

- Hematology
- PT/INR
- Blood Chemistry- Endocrine, Diabetes, Cholesterol, Immunology, Blood Typing
- CLIA vs Lab Testing
- Lab Request Form / Lab Reports
- Lab Profiles

*HOSA Chapter Meeting

*Work-Based Learning: Simulated Lab Experience

*ADE Standard: 1.1, 1.4, 1.6, 6.7, 6.8, 8.1, 8.5, 10.2-5, 10.14, 10.15, 10.18, 12.9

*CAC MDA150 #1 Clinical Procedures, MDA151 #1 Clinical Procedures, MDA151 #2 Basic Mathematics, MDA151 #3 Microbiology

*Priority Assessments: Ch 29, 32, 33 Test

Unit 15: Phlebotomy/Venipuncture

48 Hours - 18 Classroom, 30 Lab

- Blood Vessels
- OSHA Safety, Needle Safety
- Site Selection
- Vacutainer Venipuncture
- Butterfly Venipuncture/Failure to Obtain
- Tube Additive/Order of Draw
- Skin Puncture

*Work-Based Learning: Simulated Lab Experience

*ADE Standard: 1.1-.6, 6.1, 6.6-.10, 7.1, 7.6, 7.9, 8.4-.7, 10.1-.8, 10.11, 10.12, 10.14-.16, 11.1-.6, 12.1

*CAC MDA116 2D Laboratory Test, MDA150 #5 Safety, MDA151 #6 Safety and Emergency

*Priority Assessments: Tourniquet Tie, Venipuncture w/Rubric, Ch 31 Test

Unit 16: Urinary System / Urinalysis

24 Hours - 10 Classroom, 14 Lab

- Medical Disease of Urinary System
- Chemical Examination of Urine
- Urine Specimen Collection
- Urine Culture and Sensitivity
- Color and Appearance of Urine
- Instructing Patient on Urine Collection

*HOSA: Chapter Meeting

*Work-Based Learning: Simulated Lab Experience

*ADE Standard: 1.3, 1.4, 3.1, 3.2, 4.1, 4.5, 5.2, 5.3, 5.4, 5.5, 6.9, 6.10, 7.5, 7.6, 8.1, 8.4, 8.5, 8.6, 10.1, 10.2, 10.12, 10.13, 10.14, 10.19, 11.1, 11.2, 11.3, 11.4, 11.5, 11.6, 13.6, 13.9

*CAC MDA116 #1, #2, #2A, #2B, #2C, #3, Medical Terminology, MDA150 #1, Clinical Procedures, MDA150 #5, Safety, MDA151 #1, Clinical Procedures, MDA151 #6, Safety and Emergency

*Priority Assessments: Urine Collection Rubric, Ch 30 Test

Unit 17: Endocrine, Lymphatic, Immune Systems

12 Hours - 8 Classroom, 4 Lab

- Endocrine System Organs
- Lymphatic System Organs
- Immune System
- Disease and Disorder - Diabetes

*ADE Standard: 13.8, 13.11

*CAC MDA116 #1, #2, #2A, #2B, #2C, #3 Medical Terminology

*Priority Assessments: Ch 11 & 12 Test, Disease Project Presentation

Unit 18: Nervous System & Sensory

24 Hours - 10 Classroom, 14 Lab

- Distance Visual Acuity
- Near Visual Acuity
- Color Vision
- Eye Instillation/Irrigation
- Ear Instillation/Irrigation
- Snellen Chart
- Central Nervous System
- Cranial Nerves

*HOSA: Chapter Meeting

*Work-Based Learning: Simulated Lab Experience

*ADE Standard: 3.1 4.1, 4.2, 4.4, 4.5, 5.2, 5.12, 6.1, 6.6, 6.8, 6.9, 6.10, 7.5, 7.6, 7.8, 10.13, 10.14, 10.16, 10.19, 11.1, 11.2, 11.3, 11.4, 11.5, 11.6, 12.3, 12.4, 12.8, 13.7, 13.10

*CAC MDA116 #1, #2, #2A, #2B, #2C, #3, Medical Terminology, MDA150 #1, Clinical Procedures, MDA150 #5, Safety, MDA151 #1, Clinical Procedures, MDA150 #5, Safety, MDA151 #6, Safety and Emergency

*Priority Assessments: Rubrics - Visual Acuity Skill, Ear Irrigation, Ear Instillation, Eye Irrigation, Eye Instillation, Snellen Chart Ch 21 Test

Unit 19: Digestive System

14 Hours - 8 Classroom, 6 Lab

- Anatomy of Digestive System
- Functions of Digestive System
- Perform Throat Culture
- Fecal Occult Blood
- Collect Stool Samples
- Diseases of Digestive System

*Work-Based Learning: Simulated Lab Experience

*ADE Standard: 1.3, 1.4, 1.5, 1.6, 4.1, 4.2, 4.3, 4.5, 6.1, 6.6, 6.7, 10.11, 10.12, 10.13, 10.14, 10.15, 10.16, 11.1, 11.2, 11.3, 11.4, 11.5, 11.6, 13.5

*CAC MDA116 #1, #2, #2A, #2B, #2C, #3, Medical Terminology, MDA150 #1 Clinical Procedures, MDA151 #1, Clinical Procedures

*Priority Assessments: Collections of Stool Rubric, Performing Throat Culture Rubric Ch 14 Test

Unit 20: Nutrition

10 Hours - 5 Classroom, 5 Lab

- Nutrition Menu
- Build Food Pyramid
- Fast Food Charts
- Obesity / BMI Charts

*ADE Standard: 3.1, 3.2, 4.1, 4.2, 4.3, 4.4, 4.5, 5.2, 5.5, 6.3, 6.4, 6.6, 9.1, 9.2, 9.3, 9.6, 11.6, 13.5, 13.8, 13.11

*Priority Assessments: Nutrition Presentation

Unit 21: Resume Building

8 Hours - 2 Classroom, 6 Lab

- Resume Style
- Marketing Self
- Resume Writing

*Priority Assessments: Resume Rubric

Unit 22: Semester Final / Benchmark / Closure

8 Hours - 8 Classroom, 0 Lab

- Final in Gradebook
- Inventory
- Clean and Prepare Closure of Clinic Area

District Post-Assessment

Semester 3 – 180 Hours

Unit 23: Orientation

6 Hours - 6 Classroom

- CAVIT Handbook
- Syllabus
- Roles & Responsibilities
- Rules & Procedures

Unit 24: Anatomy Term Review

10 Hours - 6 Classroom, 4 Lab

- Medical Terminology
- Capillary Stick Review
- Vitals Review

*ADE Standard: 3.0, 3.1, 3.2

*CAC MDA116 #1, #2, #2A, #2B, #2C, #3 Medical Terminology

*Priority Assessments: Benchmark Test

Unit 25: Cardiopulmonary / EKG

60 Hours - 40 Classroom, 20 Lab

- Circulation of Blood
- Diseases of the Heart
- Artifacts/Baseline
- EKG Paper Reading
- Lead Placement
- PQRST Wavelength

*HOSA: Meeting

*Work-Based Learning: EKG Simulated Lab Experience

*ADE Standard: 1.4, 1.5, 5.2, 5.3, 6.1, 6.7, 6.8, 6.9, 6.10, 12.2, 13.3, 13.11

*CAC MDA116 #1, #2, #2A, #2B, #2C, #3

Medical Terminology, MDA151 #1 Clinical Procedures, MDA151 #6 Safety and Emergency

*Priority Assessments: EKG Placement Rubric Perform EKG Evaluation Rubric, Ch 12 Test

Unit 26: Respiratory System

16 Hours - 8 Classroom, 8 Lab

- Inhale and Exhale
- PFT/Spirometry
- Diseases of Lungs
- Tracheotomy

*HOSA: Chapter Meeting

*ADE Standard: 1.1, 1.3, 1.5, 1.6, 4.1, 6.8, 6.10, 12.5, 12.6

*CAC MSLO: MDA116 #1, #2, #2A, #2B, #2C, #3

Medical Terminology, MDA150 #1 Clinical Procedures MDA150 #5 Safety, MDA151 #1 Clinical Procedures, MDA151 #6 Safety and Emergency

*Priority Assessments: Quizzes, Ch 13 Test

Unit 27: CPR/First Aid

18 Hours - 10 Classroom, 9 Lab

- Adult CPR
- Pediatric CPR
- Basic First Aid

*ADE Standard: 5.2, 6.9, 11.1, 11.2, 11.3, 11.4, 11.5, 11.6

*CAC MDA151 #1 Clinical Procedures, MDA151 #6 Safety and Emergency

*Priority Assessments: Adult CPR Skills Rubric,

Peds CPR Skills Rubric, Ch 37 Test

Unit 28 Pharmacology/Medicine

40 Hours – 30 Classroom, 10 Lab

- Administering, Prescribing Dispensing Medications
- Classify Drugs
- Medical Math
- Five Schedules for Controlled Drugs
- Parts of a Prescription
- Absorption of Oral, Parenteral Medication

*HOSA: Chapter Meeting

*Work-Based Learning: Simulated Lab Experience

*ADE Standard: 1.1, 1.3, 1.4, 1.5, 3.1, 3.2, 4.1, 6.1, 6.9, 7.6, 7.7, 7.8, 7.9, 7.10, 7.11, 7.12, 8.6, 8.7, 10.1, 10.2

*CAC MDA116 #1, #2, #2A, #2B, #2C, #3

Medical Terminology, MDA150 #1 Clinical Procedures, MDA151 #1 Clinical Procedures, MDA151 #2 Basic Mathematics, MDA151 #3 Microbiology/Infection Control, MDA151 #4 Analyze and Apply Professional Communication, MDA151 #5 Legal Implications and Ethical Considerations, MDA151 #6 Safety and Emergency

*Priority Assessments: Research Project on Common Drugs, Ch 26 Test, Write a Prescription Rubric

Unit 29: Injections

30 Hours - 15 Classroom, 15 Lab

- Identify Parts of Needle/Syringes
- State Gauge/Length of Needle
- Intradermal Injection
- Subcutaneous Injection
- Intramuscular Injection
- TB Testing
- Define Allergies

*HOSA: Chapter Meeting

*Work-Based Learning: Simulated Lab Experience

*ADE Standard: 1.1, 1.3, 1.4, 1.5, 1.6, 3.1, 3.2, 4.1, 5.2, 5.3, 5.4, 6.11, 7.7, 7.8, 7.9, 7.10, 7.11, 7.12, 8.7, 8.8, 9.3, 10.1, 10.2, 10.3

*CAC MDA116 #1, #2, #2A, #2B, #2C, #3
 Medical Terminology, MDA150 #1 Clinical
 Procedures, MDA151 #1 Clinical Procedures,
 MDA151 #2 Basic Mathematics, MDA151 #3
 Microbiology/Infection Control, MDA151 #4
 Analyze and Apply Professional Communication,
 MDA151 #5 Legal Implications and Ethical
 Considerations, MDA151 #6 Safety and
 Emergency
 *Priority Assessments: Intradermal injection
 Rubric, Intramuscular Injection Rubric,
 Subcutaneous Injection Rubric, Ch 26 Test

Semester 4 – 180 Hours

Unit 30: Minor Office Procedures

30 Hours: 15 Classroom, 15 Lab

- Identify Surgical Instrument
- Set Up Sterile Field
- Assisting During Surgery
- Bandage Changing
- Sterile Gloving
- Open and Closed Wounds

*HOSA: Chapter Meeting

*ADE Standard: 1.1, 1.3, 1.4, 1.5, 6.2, 6.3, 6.6,
 6.7, 6.8, 6.9, 6.10, 7.0, 7.1, 7.2, 7.3, 7.4, 8.0, 8.1,
 8.2, 8.3, 8.5, 8.6, 8.7, 8.8, 9.2

*CAC MDA151 #1, Clinical Procedures, MDA151
 #2 Basic Mathematics, MDA151 #3
 Microbiology/Infection Control, MDA151 #4
 Analyze and Apply Professional Communication,
 MDA151 #5 Legal Implications and Ethical
 Considerations, MDA151 #6 Safety and
 Emergency

*Priority Assessments: Sterile Field Set Up
 Rubric, Debriding Wounds Rubric, Sterile
 Gloving Rubric, Ch 25 Test

Unit 31: Autoclaving/Sterilization

12 Hours - 6 Classroom, 6 Lab

- Wrapping Instruments for Autoclave
- Autoclave Cleaning

*ADE Standard: 8.7, 10.2, 10.7, 10.8

*CAC MSLO: MDA151 #1 Clinical Procedures,
 MDA151 #2 Basic Mathematics, MDA151 #3
 Microbiology/Infection Control, MDA151 #4
 Analyze and Apply Professional Communication,
 MDA151 #5 Legal Implications and Ethical
 Considerations, MDA151 #6 Safety and
 Emergency

*Priority Assessments: Autoclave Rubric, Ch 25
 Test

Unit 32: Reproductive System

24 Hours: 12 Classroom, 12 Lab

- Male Reproductive System
- Female Reproductive System
- Disease of the Reproductive System
- Sexually Transmitted Diseases

*HOSA: Chapter Meeting

*ADE Standard: 13.9

*CAC MDA116 #1, #2, #2A, #2B, #2C, #3
 Medical Terminology

*Priority Assessments: Ch 16 Test

Unit 33: Gynecology

24 Hours: 12 Classroom, 12 Lab

- GYN Sterile Trays
- OB Sterile Trays
- Stages of Pregnancy

*ADE Standard: 13.9, 8.8, 8.7, 8.5, 8.4, 6.10,
 6.9, 6.8, 6.7, 6.6, 6.4

*CAC MSLO: MDA151 #1 Clinical Procedures,
 MDA151 #2 Basic Mathematics, MDA151 #3
 Microbiology/Infection Control, MDA151 #4
 Analyze and Apply Professional Communication,
 MDA151 #5 Legal Implications and Ethical
 Considerations, MDA151 #6 Safety and
 Emergency

*Priority Assessments: Ch 23 Test

Unit 34: Pediatrics

30 Hours: 15 Classroom, 15 Lab

- Holding an Infant
- Measure Ht/Wt/Head Circumference
- BP for Children
- Injection on Peds
- Immunization Scheduling
- Newborn Screening
- Well Child- Sick Child Visit

*HOSA: Chapter Meeting

*ADE Standard: 1.2, 1.3, 1.4, 1.5, 1.6, 6.1, 6.2, 6.3, 6.4, 6.6, 6.7, 6.8, 6.9, 7.7, 7.8, 7.11, 7.12, 1.0, 2.0, 3.1, 4.2, 4.3

*CAC MDA150 #1 Clinical Procedures, MDA151 #1 Clinical Procedures, MDA151 #2 Basic Mathematics, MDA151 #3 Microbiology/Infection Control, MDA151 #4 Analyze and Apply Professional Communication, MDA151 #5 Legal Implications and Ethical Considerations, MDA151 #6 Safety and Emergency

*Priority Assessments: Head Circumference Rubric, Child/Infant Height and Weight Rubrics, Immunization Charting Skills, Ch 24 Test

Unit 35: Specialty Exams

10 Hours - 10 Classroom

- X-Rays
- MRI
- Ultrasound
- Colonoscopy

*ADE Standard: 1.4, 1.5, 6.1, 6.7, 6.8, 6.9, 6.10, 7.1, 7.2, 7.3, 7.4, 7.5, 8.1, 8.2, 8.4, 10.1, 10.2, 10.3, 10.4

*CAC MDA150 #1 Clinical Procedures, MDA151 #1 Clinical Procedures, MDA151 #2 Basic Mathematics, MDA151 #3 Microbiology/Infection Control, MDA151 #4 Analyze and Apply Professional Communication, MDA151 #5 Legal Implications and Ethical Considerations, MDA151 #6 Safety and Emergency

*Priority Assessments: Ch 28 Test

Unit 36: Industry Skill Evaluations

10 Hours: 3 Classroom, 7 Lab

- Vital Signs
- Ear and Eye Irrigation
- Injections
- EKG
- Patient Ambulation
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*Work-Based Learning: Simulated Lab Experience

*ADE Standard: 1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.1, 10.0, 11.0, 12.0, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.8, 12.9, 13.0, 13.1, 13.2, 13.3, 13.4, 13.5, 13.6, 13.7, 13.8, 13.9, 13.10, 13.11

*CAC MDA150 #1 Clinical Procedures, MDA151 #1 Clinical Procedures, MDA151 #2 Basic Mathematics, MDA151 #3 Microbiology/Infection Control, MDA151 #4 Analyze and Apply Professional Communication, MDA151 #5 Legal Implications and Ethical Considerations, MDA151 #6 Safety and Emergency

*Priority Assessments: Skills Rubrics

Unit 37: Venipuncture/Hematology Review

10 Hours: 5 Classroom, 5 Lab

- Tourniquet Application
- Needle Gauges/Sizes
- Tube Coloring

*Work-Based Learning: Simulated Lab Experience

*ADE Standard: 12.1

Unit 38: ADE/CCMA Review

20 Hours: 10 Classroom, 10 Lab

- Front Office Procedures
- Ears and Eyes
- EKG
- Phlebotomy
- Surgery Procedures
- Anatomy

*ADE Standard: 1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.1, 10.0, 11.0, 12.0, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.8, 12.9, 13.0, 13.1, 13.2, 13.3, 13.4, 13.5, 13.6, 13.7, 13.8, 13.9, 13.10, 13.11

*Priority Assessments: CCMA Certification

Unit 39: Graduation Goals

10 Hours: 5 Classroom, 5 Lab

- Scholarships
- NHA Completion

*ADE Standard: 1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0,
8.0, 9.2, 10.0, 11.0, 12. 0, 12.2, 12.3, 12.4, 12.5,
12.6, 12.7, 12.8, 12.9, 13.0, 13.1, 13.2, 13.3,
13.4, 13.5, 13.6, 13.7, 13.8, 13.9, 13.10, 13.11