



**2017-2018**

# **Medical Assistant - Clinical**

## **OUTLINE**

### **DESCRIPTION:**

Medical Assistant- Clinical is designed to teach students those clinical skills necessary for employment in a variety of medical settings. Students will practice medical terminology, anatomy and physiology, vital signs, medical/surgical asepsis, physical examination, basic electrocardiography, basic pharmacology, assisting with diagnostic and therapeutic procedures, and laboratory procedures. Activities in this course include work-based learning that connects students to industry and the local community. A negative TB test is required for participation in worksite learning. Medical Terminology and ACE (Advanced Career Education) are pre-requisites.

***Medical Assistant - Clinical has been UC a-g approved to meet the elective (“g” – Laboratory Science – Biology / Life Sciences) requirement.***

### **INFORMATION:**

- A. Pre-requisites: Current negative TB test, successful completion of Medical Terminology, completion of ACE pre-requisite classes or successful completion of basic skills assessment.
- B. Length: One year (404 hours Classroom, 160 hours CC)  
*\*hours reflect competency based instruction in a laboratory setting.*
- C. Sector: Health Science & Medical Technology
- D. Pathway: Patient Care

<b>O*Net SOC Codes</b>	
<b>Code #</b>	<b>Title</b>
31-9092.00	Medical Assistants

<b>Orientation</b>
<ul style="list-style-type: none"><li>A. Introduce the course and facilities.</li><li>B. Discuss the syllabus and major objectives.</li><li>C. Explain applicable classroom management procedures, the ROP Student Rules of Conduct, and any operational guidelines.</li><li>D. Review instructor/student expectations.</li><li>E. Explain enrollment and attendance requirements and procedures.</li><li>F. Review grading and student evaluation procedures.</li><li>G. Discuss the community classroom aspect of the program if applicable.</li><li>H. Discuss the “next steps” related to additional education, training, and employment.</li><li>I. Review classroom safety, emergency and disaster procedures.</li></ul>
<b>1. Communication Skills</b>
<ul style="list-style-type: none"><li>A. Demonstrate positive verbal communication skills using appropriate vocabulary, demeanor, and vocal tone in the classroom and/or worksite.</li><li>B. Read and interpret written information and directions.</li><li>C. Practice various forms of written communication appropriate to the occupation.</li><li>D. Practice positive body language skills.</li><li>E. Practice professional verbal skills for resolving a conflict.</li><li>F. Demonstrate active listening skills including techniques for checking for understanding, and for obtaining clarification of directions.</li></ul>
<b>2. Interpersonal Skills</b>
<ul style="list-style-type: none"><li>A. Demonstrate positive teamwork skills by contributing to a group effort.</li><li>B. Practice the importance of diversity awareness and sensitivity in the workplace.</li><li>C. Define sexual harassment in the workplace and identify the employee’s role and responsibility.</li><li>D. Practice participation skills.</li><li>E. Identify different personality types and strategies for working effectively with each type.</li><li>F. Practice business and social etiquette skills appropriate to the occupation.</li><li>G. Discuss the role of business and personal ethics in the decision-making process.</li><li>H. Evaluate various job-related scenarios and justify decisions based on ethics.</li><li>I. Demonstrate flexibility and adaptability in working with others.</li><li>J. Demonstrate the use of time management skills.</li></ul>
<b>3. Employability Skills</b>

- A. Demonstrate appropriate attendance and punctuality practices for the classroom and worksite if applicable.
- B. Prepare a resume, cover letter, and job application forms.
- C. Demonstrate interviewing techniques using appropriate tone and body language.
- D. Demonstrate appropriate dress and grooming standards in seeking employment and for the workplace.
- E. Identify strategies for employment retention.
- F. Analyze the impact of social networking on employability.
- G. Identify the need for continuing education, professional development, and professional growth in chosen field.
- H. Identify appropriate procedures for leaving a job.
- I. Identify sources of job information, including electronic sources.
- J. Review company policies and current trends in employee compatibility screening, drug screening, and background checks.

#### **4. Leadership**

- A. Define leadership and identify the responsibilities, competencies, and behaviors of successful leaders.
- B. Work with peers to promote divergent and creative perspectives.
- C. Demonstrate how to organize and structure work, individually and in teams, for effective performance and the attainment of goals.
- D. Explain multiple approaches to conflict resolution and their appropriateness for a variety of situations in the workplace.
- E. Employ ethical behaviors and actions that positively influence others.
- F. Use a variety of means to positively impact the direction and actions of a team or organization.
- G. Analyze the short-term and long-term effects a leader's actions and attitudes can have on productivity, morale, and organizational culture.

#### **5. Personal and Occupational Safety**

- A. Demonstrate procedures to be followed in the case of emergencies.
- B. Discuss ways to report a potential safety hazard to a supervisor.
- C. Identify and discuss cyber ethics, cyber safety, and cyber security.
- D. Apply personal safety practices to and from the job.
- E. Describe the procedure for reporting a work-related hazard or injury.
- F. Recognize the effects of substance abuse in the workplace.
- G. Recognize good housekeeping as a safety issue.
- H. Explain the importance of CAL-OSHA.
- I. Define and discuss ergonomics in relation to the working environment.
- J. Discuss the electrical hazards of working with electronic equipment.

## 6. Universal and Standard Body Substance

- A. Differentiate between standard precautions and transmission-based precautions.
- B. Demonstrate how to properly clean, decontaminate, and dispose of spills including blood, body fluids, and medical waste.
- C. Demonstrate proper hand washing techniques, use of personal protective equipment, proper documentation of disposal and spills, and explain proper care of contaminated laundry.
- D. Differentiate between common infectious diseases, modes of transmission, and signs/symptoms of each, including HIV disease, Tuberculosis, and Hepatitis.
- E. Discuss classic signs and symptoms of the inflammatory process.
- F. Properly complete required documentation; correctly identify, spell, define, and pronounce key terms.

## 7. Medical Asepsis

- A. Describe and demonstrate how items are to be wrapped, positioned and removed from a sterilizer.
- B. Demonstrate the proper sanitization, disinfection procedures, and wrapping techniques for medical instruments.
- C. Discuss storage timelines for sterile supplies.
- D. Properly complete required documentation; correctly identify, spell, define, and pronounce key terms.
- E. Understand the chain of infection and the human body's natural defense mechanisms in the control or prevention of disease.
- F. Demonstrate proper use of autoclave /sterilizer including proper documentation and logs.

## 8. Surgical Asepsis

- A. Identify common instruments and supplies and set up instruments used in minor surgical procedures and the various forms used in documentation of procedures.
- B. Demonstrate the ability to maintain a sterile field with any procedure requiring sterile technique.
- C. Explain the proper procedure for removing sutures and staples from a wound.
- D. Demonstrate the proper techniques for a dry dressing change and explain the process used to obtain a wound culture.
- E. Discuss the necessary steps in preparing a patient for a surgical procedure including verifying necessary paperwork/consent forms.
- F. Describe and demonstrate handling of sterile supplies to include opening peel-down packs, opening envelope wraps, pouring of sterile solutions, and donning and removal of sterile gloves.
- G. Describe the various forms of anesthesia used in a surgical procedure.
- H. Demonstrate a surgical scrub.

## 9. Physical Measurements – Vital Signs

- A. Demonstrate the correct procedures for taking and recording a patient's pulse and respiration rate, oxygen saturation, temperature, blood pressure, height, weight/BMI, and pain scale (as necessary) and list factors that influence vital signs.
- B. Identify the five vital signs and the body systems measured by each.
- C. Correctly identify variations for normal ranges of vital signs.
- D. Describe the equipment and methods used to obtain and record a patient's vital signs.
- E. Demonstrate the correct procedure for cleaning, disinfecting, and storing vital sign equipment.
- F. Demonstrate the ability to convert temperature readings between Fahrenheit and Centigrade.
- G. Explain and demonstrate the procedure for obtaining and recording a patient's temperature using various types of equipment.
- H. Identify and locate major pulse points, including factors that affect pulse and respiratory rate.
- I. Demonstrate the ability to convert weight between pounds and kilograms.
- J. Demonstrate the ability to convert height between inches and centimeters.

## 10. Health History – Physical, Routine, and Specialty Examinations

- A. List the guidelines for conducting a patient interview including confidentiality and HIPAA regulations.
- B. Demonstrate the ability to obtain and document an accurate patient history including medication reconciliation and allergies.
- C. Demonstrate placing the patient in various positions for different types of specialty exams.
- D. Properly complete required documentation including electronic medical records (EHR).
- E. Identify the major components of a patient's medical record and describe the information recorded in each.
- F. Discuss the role of cultural diversity and how communication skills influence the procedure for obtaining a patient's health history.
- G. Demonstrate the ability to properly select the equipment used during common specialty examinations.
- H. Demonstrate accuracy in measuring and recording growth for pediatric patients.

## 11. Principles of Pharmacology and Drug Administration

- A. Identify diseases for which the Center for Disease Control (CDC) has issued immunization guidelines for healthcare workers.
- B. Identify the potential complications associated with injections.
- C. Identify safety guidelines and precautions in the administration of medications.
- D. Demonstrate the ability to correctly compute dosage calculations using the standard, metric, and apothecary systems.
- E. Demonstrate the administration of injections using the correct time, patient, route, drug, dosage, allergies and documentation.
- F. Describe the proper handling, storage, and labeling of commonly used drugs, including oxygen.
- G. Identify the legal requirements for controlled substance inventory and administration.
- H. Demonstrate how to use the PDR to correctly identify drugs, describe adverse reactions, explain indication and usage, contraindications, dosage, administration, how supplied and appropriate medication references.
- I. Differentiate between administering, dispensing, and prescribing commonly used medications.

- J. Identify the basics of pharmacology, including the classification and use of drugs.
- K. Discuss drug standards and the laws governing drug usage.
- L. Identify and describe the common types of pharmaceutical preparations and methods of administration.
- M. Identify drugs, equipment, and supplies needed for an emergency medical situation.
- N. Identify common factors that influence drug dosage and drug action.
- O. Discuss aspects of patient education when drug therapy is initiated.
- P. Identify the role of the Center for Disease Control (CDC) in recommending immunization guidelines for health care providers.
- Q. Demonstrate the patient preparation and the correct procedure for irrigation and instillation of medications for the ear and the eye.
- R. Explain the purpose of the 6 patient rights: patient, route, drug, dose, time, and rational.

## 12. Electrocardiography

- A. Demonstrate the proper technique for administering a 12 lead electrocardiogram, including standardization and verification of gain setting.
- B. Discuss the procedure and care of a patient using a Holter monitor.
- C. Identify common cardiac arrhythmias.
- D. Demonstrate the correct preparation of the patient before administering a 12 lead electrocardiogram (EKG).
- E. Identify and discuss the cardiac cycle and conduction system of the heart.
- F. Identify components recorded and factors that are interpreted on the electrocardiogram cycle.

## 13. Hematology and Blood Chemistry

- A. Explain and demonstrate the correct procedure for obtaining a venous blood specimen using a safety syringe and needle, vacuum tube, and winged infusion set.
- B. Demonstrate the correct procedure for obtaining a blood specimen by fingertip skin puncture using a hematocrit tube, blood lancets, clay, and blood glucometer.
- C. Correctly identify body sites used for obtaining capillary and venous blood for testing and the common collection tubes, the order in which they are used, and the proper handling of blood samples.
- D. List the formation, components, and functions of blood.
- E. Demonstrate the preparation and care of a patient when obtaining a blood sample.
- F. Identify and discuss troubleshooting venipuncture technique and equipment.
- G. Differentiate between the common blood tests ordered, including hematocrit, hemoglobin, cholesterol, and blood glucose.
- H. Differentiate between types of syringes and needles including the uses and safety features.

<b>14. Laboratory Skills and Diagnostic Testing</b>
<ul style="list-style-type: none"><li>A. Identify the parts and demonstrate the use of a microscope, centrifuge, and hemocue.</li><li>B. Demonstrate patient preparation techniques for the collection, transportation, and handling of urine, sputum, throat and nasopharyngeal, wound, and vaginal cultures, including proper documentation and labeling.</li><li>C. Identify diagnostic tests used to specify common medical conditions.</li></ul>
<b>15. Immediate and Temporary Care</b>
<ul style="list-style-type: none"><li>A. Successfully demonstrate First Aid techniques for multiple situations.</li><li>B. Successfully complete the American Heart Association Basic Life Support CPR with AED (infant, child, adult) requirements for certification.</li></ul>
<b>16. Ethical and Legal Considerations</b>
<ul style="list-style-type: none"><li>A. Identify various forms of privileged communication, HIPAA regulations, and causes for the breach of confidentiality.</li><li>B. Understand and define the Good Samaritan Act and the Confidentiality of Medical Information Act.</li><li>C. Discuss the patient arbitration agreement and its legal implications.</li><li>D. Identify the various parts of the Principles of Medical Ethics issued by the American Medical Association (AMA).</li><li>E. Demonstrate understanding of the violation of ethical standards and unethical behavior.</li><li>F. Identify and explain the regulations defined in HIPAA. (Background, Overview, Provisions, Implementations).</li><li>G. Explain Advanced Directives.</li></ul>
<b>17. Internship</b>
<ul style="list-style-type: none"><li>A. Complete 160 hours of internship in a clinical setting.</li></ul>

## Key Assignments

Assignment	Competencies	Career Ready Practices	Anchor Standards	Pathway Standards	CCSS
1. Students will participate in mock interviews that represent current industry practices (e.g., skills demonstrations, resumes, applications, portfolios, personal websites, etc.).	1A, B, D 3B, C, D, I, J	2 3 10	2 3		LS 11-12.6 SLS 11-12.2
2. Students will prepare a patient and the room for minor surgical procedures.	1A-F, 2A,B, D-F,I, J 5A,D, E, G, H 6A-C, E, F 7A,B,E,F 8A-H 9A-J 10A-G 11B-F, H, M-O 14B, C 15 A, B 16 A,E,F	1 2 4 5 7 8 9 12	2 5 6 8	B4.0 B5.0 B6.0 B7.0 B11.0	RLST 11-12.4 WHSST 11-12.4 LS 11-12.6 RSTS 11-12.4
3. Students will run a mock immunization clinic,	1A-F 2A-G, I-J 5A,B,D,E, G,H 6A-C, D-F 7C-F 8B,D,F 9A-J 10A-H 11A-F, H,I J-P 14C 16A ,E,F,	1 2 4 5 7 8 9 12	2 5 6 8	B4.0 B5.0 B7.0 B10.0	RLST 11-12.3 LS 11-12.6 RSTS 11-12.4 SLS 11-12.1d

Assignment	Competencies	Career Ready Practices	Anchor Standards	Pathway Standards	CCSS
4. Students will develop a plan to address common legal and/or medical issues.	1A-F, 2A-J 5A,B, F, 6A,D, C, E, F 10A-H 11A,B, G, K, O 13 A,G 14B, C 15 A, B 16 A,-G	2 5 7 9 11 12	2 4 5	B5.0	LS 11-12.1 LS 11-12.2 RLST 11-12.1 WHSST 11-12.2 LS 11-12.6 WS 11-12.6 WS 11-12.7
5. Students will run a mock laboratory where they will obtain and process lab specimens.	1A-F, 2A-J 5A-J 6A-F 7B,D,E, F 8 A, D, F 10A-H 13A-C 14A-C 15 A, B 16 A-G	1 2 4 5 7 8 9 12	2 5 6 8	B6.0 B10.0 B11.0	RLST 11-12.3 RLST 11-12.4 PS 1.B LS 11-12.6 RSTS 11-12.4
6. Students will prepare a patient information sheet that is specialty appropriate.	1A-F, 2A-J 10A-F 12C, D, F 13D,E, G 16 A B, D,E,FG	2 5 6 10 11	2 4	B5.0	LS 11-12.1 LS 11-12.2 LS 11-12.6 RLST 11-12.1 WHSST 11-12.2 WS 11-12.6

Assignment	Competencies	Career Ready Practices	Anchor Standards	Pathway Standards	CCSS
7. Students will create and implement emergency preparedness plans for various emergency situations	1A-F, 2A-J 5A-J 6A-F 7,B,C,D,E 9A-E,H, J 10, B , D 11 B, F, H 12 A-F 15 A, B 16 A,-G	1 2 4 5 7 8 9 12	2 5 6 8 9 10	B4.0 B5.0 B6.0 B7.0 B8.0 B11.0 B12.0	LS 11-12.1 LS 11-12.2 LS 11-12.6 RLST 11-12.1 RLST 11-12.3 RLST 11-12.4 RSTS 11-12.4 RSIT 11-12.7 SLS 11-12.1B SLS 11-12.1D WS 11-12.2 WS 11-12.4 WS 11-12.6 WS 11-12.7 WS 11-12.8
8. Student will participate in a mock general practice clinic.	1A-F, 2A,B, D-F,I, J 5A,D, E, G, H 6A-C, E, F 7A,B,E,F 8A-H 9A-J 10A-G 11B-F, H, M-O 14B, C 15 A, B 16 A,E,F	1 2 4 5 7 8 9 12	2 5 8 9	B3.0 B4.0 B6.0 B12.0	AAPR 1 AREI 1 AREI 3 RLST 11-12.3 PS 1.B LS 11-12.6 SLS 11-12.1D SLS 11-12.1B
9. Student will participate in a community classroom externship	All	1 2	2 6	B3.0 B4.0	AAPR 1

# 2017-2018

Assignment	Competencies	Career Ready Practices	Anchor Standards	Pathway Standards	CCSS
program.		4 5 7 8 9 12	8 9 11	B5.0 B10.0 B11.0 B12.0	AREI 1 AREI 3 LS,11-12.6 RSTS, 11-12.4 SLS 11-12.1B SLS 11-12.1D

## Standards Assessed in this Program

### Career Ready Practices

1. Apply appropriate technical skills and academic knowledge.
2. Communicate clearly, effectively, and with reason.
3. Develop an education and career plan aligned to personal goals.
4. Apply technology to enhance productivity.
5. Utilize critical thinking to make sense of problems and persevere in solving them.
6. Practice personal health and understand financial well-being.
7. Act as a responsible citizen in the workplace and the community.
8. Model integrity, ethical leadership, and effective management.
9. Work productively in teams while integrating cultural/global competence.
10. Demonstrate creativity and innovation.
11. Employ valid and reliable research strategies.
12. Understand the environmental, social, and economic impacts of decisions.

### Anchor Standards

#### 2.0 Communications

- Acquire and use accurately sector terminology and protocols at the career and college readiness level for communicating effectively in oral, written, and multimedia formats.

#### 3.0 Career Planning and Management

- Integrate multiple sources of career information from diverse formats to make informed career decisions, solve problems, and manage personal career plans.

#### 4.0 Technology

- Use existing and emerging technology, to investigate, research, and produce products and services, including new information, as required in the sector workplace environment.

#### 5.0 Problem Solving and Critical Thinking

- Conduct short, as well as more sustained, research to create alternative solutions to answer a question or solve a problem unique to the sector using critical and creative thinking, logical reasoning, analysis, inquiry, and problem-solving techniques.

#### 6.0 Health and Safety

- Demonstrate health and safety procedures, regulations, and personal health practices and determine the meaning of symbols, key terms, and domain-specific words and phrases as related to the sector workplace environment.

#### 7.0 Responsibility and Flexibility

- Initiate, and participate in, a range of collaborations demonstrating behaviors that reflect personal and professional responsibility, flexibility, and respect in the sector workplace environment and community settings.

#### 8.0 Ethics and Legal Responsibilities

- Practice professional, ethical, and legal behavior, responding thoughtfully to diverse perspectives and resolving contradictions when possible, consistent with applicable laws, regulations, and organizational norms.

## **9.0 Leadership and Teamwork**

- Work with peers to promote divergent and creative perspectives, effective leadership, group dynamics, team and individual decision making, benefits of workforce diversity, and conflict resolution.

## **10.0 Technical Knowledge and Skills**

- Apply essential technical knowledge and skills common to all pathways in the sector following procedures when carrying out experiments or performing technical tasks.

## Pathway Standards

### **Health Science and Medical Technology - Patient Care Pathway**

**B3.0** Know how to apply mathematical computations used in healthcare delivery system.

**B4.0** Recognize and practice components of an intake assessment relevant to patient care.

**B5.0** Know the definition, spelling, pronunciation, and use of appropriate terminology in the healthcare setting.

**B6.0** Communicate procedures and goals to patients using various communication strategies to respond to questions and concerns.

**B7.0** Apply observation techniques to detect changes in the health status of patients.

**B8.0** Demonstrate the principles of body mechanics as they apply to the positioning, transferring, and transporting of patients.

**B10.0** Comply with protocols and preventative health practices necessary to maintain a safe and healthy environment for patients, healthcare workers, coworkers, and self within the healthcare setting.

**B11.0** Comply with hazardous waste disposal policies and procedures, including documentation, to ensure that regulated waste is handled, packaged, stored, and disposed of in accordance with federal, state, and local regulations.

**B12.0** Adhere to the roles and responsibilities, within the scope of practice, that contribute to the design and implementation of treatment planning

## Common Core State Standards

### **ENGLISH LANGUAGE ARTS**

#### **Language Standards**

**LS 11-12.1:** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

**LS 11-12.2:** Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

**LS 11-12.6:** Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the (career and college) readiness level, demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

#### **Reading Standards for Information Text**

**RSIT 11-12.7:** Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in

words in order to address a question or solve a problem.

## **Reading Standards for Literacy in Science and Technical Subjects**

**RLST 11-12.1:** Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes to any gaps or inconsistencies in the account.

**RLST 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.

**RLST 11-12.4:** 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.

## **Speaking and Listening Standards**

**SLS 11-12.2:** Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions, and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.

**SLS 11-12.1:** Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners, building on others ideas and expressing their own clearly and persuasively.

**SLS 11-12.1b:** Work with peers to promote civil, democratic discussions and decision making, set clear goals and deadlines, and establish individual roles as needed.

**SLS 11-12.1d:** Respond thoughtfully to diverse perspectives, synthesize comments, claims and evidence made on all sides of an issue, resolve contradictions when possible, and determine what additional information or research is required to deepen the investigation or complete the work.

## **Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects**

**WHSST 11-12.2:** Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.

**WHSST 11-12.4:** Produce clear and coherent writing in which the development, organization, and style are appropriate for task, purpose, and audience.

## **Writing Standards**

**WS 11-12.2:** Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

- a. Introduce a topic or thesis statement; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
- b. Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.
- c. Use appropriate and varied transitions and syntax to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.
- d. Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topics.
- e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

- f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic.)

**WS 11-12.4:** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

**WS 11-12.6:** Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback including new arguments and information.

**WS 11-12.7:** Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem, narrow or broaden the inquiry when appropriate, synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

**WS 11-12.8:** Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation including footnotes and endnotes.

## MATHEMATICS

### Algebra-Arithmetic with Polynomials and Rational Expressions

**AAPR 1:** Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication: add, subtract, and multiply polynomials, and divide polynomials by monomials. Solve problems in and out of context. (Common Core Standard A-APR-11)

## SCIENCE

### Physical Science

**PS 1.B:** Chemical Reactions

## A-G Approved Key Assignments

1. Select and research a disease, using a variety of resources. Present the information from notes using visual aids. May include a written report or essay.
2. Analyze the features of labels that contain graphics and hazardous materials information.
3. In the process of taking and recording vital signs: convert Fahrenheit to centigrade, inches to feet, kilograms to pounds, and visa versa for each.
4. Calculate the percentage of increase or decrease from previous records/recordings.
5. Create a graphic representation of vital sign data and interpret the data.
6. Generate medical history and record in a document to practice charting, vocabulary, and abbreviations through interviewing and role-play.
7. Demonstrate correct usage of medical terminology.
8. Analyze formatting and layout features of the Physicians' Desk Reference for looking up specific information about various drugs.
9. Analyze and interpret labels to determine proper storage and handling of commonly used drugs.
10. Use prescription labels to interpret medical abbreviations and symbols.
11. Calculate the dosage for weekly or daily use.

12. Compare and compute dosages using the standard, metric, and apothecary systems.
13. Calculate percentage increases and decreases of dosages.
14. Measure dosages and practice administering injections using specific criteria.
15. Practice interviewing techniques to explain and demonstrate the correct procedure for obtaining a venous blood specimen using a syringe and needle, vacuum tube, and winged infusion set.
16. Practice interviewing techniques to demonstrate the correct procedure for obtaining a blood specimen by fingertip skin puncture using various pieces of equipment.
17. Demonstrate patient preparation and interview techniques and follow proper procedures to collect and prepare a blood smear and Uri analysis for microscopic examination.
18. Prepare a capillary tube for centrifugation.
19. Demonstrate through role- play the proper use of First Aid and CPR skills according to certification requirements.
20. Research a controversial issue and prepare to take a position regarding ethics for a debate or panel discussion.
21. Analyze Advance Directives and illustrate knowledge through role-play.
22. Obtain and chart confidential health history through mock interviews and role-play.