COLTON REDLANDS YUCAIPA
REGIONAL OCCUPATIONAL PROGRAM

2025-2026

Medical Assistant Clinical 2

COURSE OUTLINE - UC

DESCRIPTION:

Medical Assistant Clinical 2 is designed to teach students back-office skills required for entry level position as a medical assistant and prepare students for post-secondary education in patient care. Students will acquire medical assistant skills such as taking vitals, recording health histories, preparing patients for examinations, drawing blood, and assisting with minor surgical procedures in simulated laboratory exercises while practicing and learning medical terminology, anatomy and physiology, medical/surgical asepsis, and basic pharmacology. Activities in this course include work-based learning that connects students to industry and the local community. Students must complete all medical assistant clinical courses and the field ROP internship in the ordered sequence to receive the Medical Assistant certificate.

INFORMATION:

PRE-REQUISITE:	Medical Assistant Clinical 1
LENGTH:	One year
SECTOR:	Health Science and Medical Technology
PATHWAY:	Patient Care
ARTICULATED:	No
UC A-G APPROVAL:	Yes: College-Preparatory Elective (G) / Science – Biology / Life Sciences Requirement

O*NET SOC CODES:

29-2072.00	Medical Records Specialists
31-9092.00	Medical Assistants
31-9097.00	Phlebotomists
43-6013.00	Medical Secretaries

Orientation

A. Introduce the course and facilities.
B. Discuss the syllabus and major objectives.
C. Explain applicable classroom management procedures, and any operational guidelines.
D. Review instructor/student expectations.
E. Explain attendance requirements and procedures.
F. Review grading and student evaluation procedures.
G. Discuss the work-based learning aspect of the program, if applicable.
H. Discuss the “next steps” related to additional education, training, and employment.
I. Review classroom safety, emergency and disaster procedures.

1. Communication Skills

A. Demonstrate positive verbal communication skills using appropriate vocabulary, demeanor, and vocal tone in the classroom and/or worksite.
B. Read and interpret written information and directions.
C. Practice various forms of written communication appropriate to the occupation.
D. Practice positive body language skills.
E. Practice professional verbal skills for resolving a conflict.
F. Demonstrate active listening skills including techniques for checking for understanding, and for obtaining clarification of directions.

2. Interpersonal Skills

A. Demonstrate positive teamwork skills by contributing to a group effort.
B. Practice the importance of diversity awareness and sensitivity in the workplace.
C. Define sexual harassment in the workplace and identify the employee’s role and responsibility.
D. Practice participation skills.
E. Identify different personality types and demonstrate flexibility and adaptability working with diverse individuals.
F. Practice business and social etiquette skills appropriate to the occupation.
G. Evaluate and discuss the role of business and personal ethics in decision making based on various job-related scenarios.
H. Demonstrate the use of time management skills.

3. Employability Skills

A. Demonstrate appropriate attendance and punctuality practices for the classroom (and worksite, if applicable).
B. Prepare a resume, cover letter, and job application.

C. Demonstrate interviewing techniques in seeking employment, using appropriate tone, body language and professional dress and grooming standards.
D. Identify strategies for employment retention.
E. Identify and analyze sources of job information, including electronic sources and the impact of social networking on employability.
F. Identify the need for continuing education, professional development, and professional growth in chosen field.
G. Identify appropriate procedures for leaving a job.
H. 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. 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 case of emergencies.
B. Describe and discuss the procedure for reporting a work-related hazard or injury (worker's comp), including 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. Recognize the effects of substance abuse in the workplace.
F. Explain the importance of CAL-OSHA in the industry.
G. Define and discuss ergonomics in relation to the working environment.
H. Discuss the electrical hazards of working with electronic equipment.

6. Universal and Standard Precautions

A. Differentiate between standard precautions and transmission-based precautions.
B. Emphasize methods and chemicals used to properly clean, sanitize, 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. Properly complete required documentation and correctly identify, spell, define, and pronounce key terms.

7. Medical Asepsis and Surgical Asepsis

A. Discuss the difference between medical and surgical asepsis.
B. Describe and demonstrate how items are to be wrapped, positioned and removed from a sterilizer.
C. Demonstrate the proper sanitization, disinfection procedures, and wrapping techniques for medical instruments.
D. Discuss storage timelines for sterile supplies.
E. Properly complete required documentation: correctly identify, spell, define, and pronounce key terms.
F. Understand the chain of infection and the human body's natural defense mechanisms in the control or prevention of disease including classic signs and symptoms of the inflammatory process.
G. Demonstrate proper use of autoclave /sterilizer including proper documentation and logs and detail how sharps are handled.
H. 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.
I. Demonstrate the ability to maintain a sterile field with any procedure requiring sterile technique.
J. Demonstrate the proper techniques for a dry dressing change and explain the process used to obtain a wound culture.

8. Minor Office Surgery

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

9. Physical Measurements & Vital Signs

A. Describe and discuss the cardiovascular, respiratory, endocrine and muscular system and identify any related diseases or disorders.
B. 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.
C. Identify the vital signs and the body systems measured by each.
D. Correctly identify variations for normal ranges of vital signs.
E. Describe the equipment and methods used to obtain and record a patient's vital signs.
F. Demonstrate the correct procedure for cleaning, disinfecting, and storing vital sign equipment.
G. Demonstrate the ability to convert temperature readings between Fahrenheit and Centigrade.
H. Explain and demonstrate the procedure for obtaining and recording a patient's temperature using various types of equipment.
I. Identify and locate major pulse points, including factors that affect pulse and respiratory rate.
J. Demonstrate the ability to convert weight between pounds and kilograms.
K. 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. Ear and Eye Examination

A. Evaluate distance visual acuity (Snellen chart) and color vision (Ishihara test).
B. Discuss complete eye irrigation and instillation.
C. Discuss and perform ear irrigation and instillation.

12. Gynecologic Examination and Prenatal Care

A. Describe and discuss the reproductive system and identify any related diseases or disorders.
B. Describe steps involved in gynecologic exam.
C. Prepare a room and medical tray with gynecological tools and acquire knowledge of instruments.
D. Describe and understand how to assist with gynecologic procedure and testing.
E. Practice how to provide patient education.
F. Identify role of medical assistant in return prenatal examination and gynecologic exam.

G. Demonstrate how to perform breast self-examination.

13. Pediatric Examination

A. Describe and discuss all body systems and related diseases or disorders pertaining to infants and children.
B. Demonstrate how to weigh an infant under 3 years of age and between 3 to 6 years.
C. Measure length, head and chest circumference of infant with Broselow tape.
D. Estimate and gauge growth percentiles.
E. Correctly compute dosage calculations for pediatric patients using the standard, metric, and apothecary systems.
F. Differentiate well child vs. sick child visits
G. Determine pediatric immunization guidelines and discuss vaccine information sheets.

14. Principles of Pharmacology and Drug Administration

A. Describe and discuss the gastro-intestinal, integumentary and muscular system and identify any related diseases or disorders.
B. Identify the role of the Center for Disease Control (CDC) and diseases for which the CDC has issued immunization guidelines for healthcare workers.
C. Identify the potential complications associated with injections.
D. Identify safety guidelines and precautions in the administration of medications.
E. Check for medical and food allergies to medication.
F. Explain the purpose of the 6 patient rights: patient, route, drug, dose, time, and rational.
G. Demonstrate the ability to correctly compute dosage calculations using the standard, metric, and apothecary systems.
H. Demonstrate and perform the administration of injections using the correct time, patient, route, drug, dosage, allergies and documentation.
I. Describe the proper handling, storage, and labeling of commonly used drugs, including oxygen.
J. Identify the legal requirements for controlled substance inventory and administration.
K. 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.
L. Differentiate between administering and dispensing commonly used medication orders.
M. Identify the basics of pharmacology, including the classification and use of drugs.
N. Discuss drug standards and the laws governing drug usage.
O. Identify and describe the common types of pharmaceutical preparations and methods of administration.
P. Identify drugs, equipment, and supplies needed for an emergency medical situation.
Q. Identify common factors that influence drug dosage and drug action.
R. Discuss aspects of patient education when drug therapy is initiated.
S. Demonstrate the patient preparation and the correct procedure for irrigation and instillation of medications for the ear and the eye.

15. Ethical and Legal Considerations

A. Identify various forms of privileged communication, HIPAA regulations, and causes for the breach of confidentiality.
B. Understand and define the Good Samaritan Act and the Confidentiality of Medical Information Act.
C. Discuss the patient arbitration agreement and its legal implications.
D. Identify the various parts of the Principles of Medical Ethics issued by the American Medical Association (AMA).
E. Demonstrate understanding of the violation of ethical standards and unethical behavior.
F. Identify and explain the regulations defined in HIPAA. (Background, Overview, Provisions, Implementations).
G. Explain Advance Directives.

16. Portfolio Design

A. Develop personal marketing and computer skills by refining your digital portfolio for post-secondary and employment acceptance.
B. Compile best samples of original works and documents for a variety of purposes, which shows a progression in the acquisition of knowledge and/or skills.
C. Demonstrate knowledge of competencies through journaling or summary of selected works or documents.
D. Revise professional resume and cover letter to align with skills and objective statements of the relevant industry.
E. Dress professionally and practice interviewing techniques using portfolio materials.
F. Assemble industry and employability documents (resume, cover letter, certifications, recommendation letters, etc.).
G. Create a “leave behind” book or folder.
H. Display portfolio materials during a fair, community event, competition, or professional panel review.
I. Evaluate and utilize feedback to improve portfolio.

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-D 2B, D-G 3A-C, E, F, H 16A-I	1 2 3 4 7 10 11	2 3 4 7 10		LS 11-12.6 SLS 11-12.2
2. In a laboratory or workplace setting, each student will demonstrate universal and standard precautions including the proper procedures for handling office equipment/supplies and hazardous materials. Students will perform the following in preparing a patient for examination: • Complete identification procedures • Complete intake procedures • Correctly chart all information • Prepare room for patient • Measure patient's height and weight • Use psychological preparation for patient • Position and drape the patient • Conduct vision/audiometric screening • Practice eye and ear irrigation and instillation	1A-F 2A, B, D-F 4B-F 5D 6A-E 9B 10C, D, H 11A-C 14R	1 2 4 5 7 8 9 12	2 4 5 7 8 9 10	B4.0 B5.0 B6.0 B7.0 B10.0 B11.0 B12.0 C7.0	RLST 11-12.3 RLST 11-12.4 LS 11-12.6 RLST 11-12.4
3. Students will participate in a mock general practice clinic. Showing how to sanitize, wrap, and place instruments into autoclaves for sterilization. Prepare a patient and the room for minor surgical procedures and be able to prepare a sterile tray.	1A-F 2A, B, D-F 4B-E 5D 6A-E 7A-J	1 2 5 7 8	2 5 7 8 9	B4.0 B5.0 B6.0 B7.0 B10.0 B11.0	RLST 11-12.4 WHSST 11-12.4 LS 11-12.6 RSTS 11-12.4

Assignment	Competencies	Career Ready Practices	Anchor Standards	Pathway Standards	CCSS
	8A-I 9A-K 10A-G 14C-G, I, N-P 15 A, E, F	9 12	10	B12.0 C7.0	
4. After learning the use and care of various types of thermometers, students will take and record vital signs, convert Fahrenheit to centigrade, inches to feet, kilograms to pounds, and vice versa for each. Students will create a graphic representation of vital sign data, interpret the data and calculate the percentage increase or decrease from previous records/recordings. The teacher will show various normal and abnormal readings, and students will identify and report the abnormalities as well as journal and share whether or not they should discuss any of the abnormalities with the patient before the doctor has seen the data.	1B, C, F 2A, B, D-F 5D 6A-E 9A-K	1 2 4 5 6 9 12	2 4 5 6 8 9 10	B4.0 B6.0	LS 11-12.6 WS 11-12.7
5. While participating in a mock general practice clinic, students will: • Obtain and chart confidential health history through mock interviews and role-play. • Generate medical record while practicing charting, vocabulary, and abbreviations. • Prepare a patient information sheet that is appropriate.	1A-F 2A, D 4B-E 5D 10A-H	1 2 4 9 11	2 4 8 9 10	B4.0 B5.0 C7.0 C12.0	LS 11-12.6 RLST 11-12.3 RSTS 11-12.4 SLS 11-12.1d
6. Students will participate in a mock practice clinic involving gynecologic examination and prenatal care and prepare a patient information sheet that is specialty appropriate to gynecologic exam and prenatal care.	1A-F 2A, D 4B-E 5D 6A-E 12A-G	1 2 4 5 6 9 10	2 4 5 6 9 10	B5.0 B12.0 C7.0	LS 11-12.1 LS 11-12.2 LS 11-12.6 RLST 11-12.1 WHSST 11-12.2

Assignment	Competencies	Career Ready Practices	Anchor Standards	Pathway Standards	CCSS
		11			
7. Students will run a mock immunization clinic whereby they practice withdrawing medication from a vial and then an ampule, measuring dosages and administering injections using specific criteria: subcutaneous, intramuscular, and intradermal injections. Students will prepare a patient information sheet that is specialty appropriate for pediatric exam.	1A-F, 2A, D 4B-E 5D 6A-E 9A 10B-D,G, H 13A-F 14C-F, I, N-P	1 2 4 5 6 7 8 9 12	2 4 5 6 7 8 9 10	B4.0 B5.0 B7.0 B10.0 B11.0 B12.0 C7.0	LS 11-12.6 RLST 11-12.3 RSTS 11-12.4 SLS 11-12.1d
8. Students will look up specific information about various drugs in the Physicians' Desk Reference; use prescription labels to interpret medical abbreviations and symbols; compare and compute dosages using the standard, metric, and apothecary systems; and calculate percentage increases and decreases of dosages and the dosage for weekly or daily use based on various factors including body surface area (BSA). Students will also practice administering medications and create procedure charts for oral medication. The chart, which will be placed in student journals, will include: • Name of procedure • Standard precautions • Purpose • Equipment/supplies • Procedure/steps • Rationale	1B, C 4B-E 5D 6E 14D, E, G-M	1 2 4 5 9 10 11	2 4 5 9 10	B3.0 B5.0 C7.0	LS 11-12.6 RLST 11-12.4 WHSST 11-12.2 WS 11-12.7 N-Q 1 N-Q 2
9. Students will write a research paper on over-the-counter (OTC) analgesics such as aspirin and nonsteroidal anti-inflammatory	1A-D 2D	1 2	2 4	B5.0 B6.0	LS 11-12.1 LS 11-12.2 LS 11-12.6

Assignment	Competencies	Career Ready Practices	Anchor Standards	Pathway Standards	CCSS
drugs (NSAIDSs). Students will include the following in their papers: • What risks can be associated with taking these drugs (use 3 or more sources)? • Surveys that have been done by the National Consumers League on adults who used an OTC pain reliever in the past year. What percentage of users exceeded the recommended dose? • What percentage of users had not spoken to a health care professional about possible risks associated with these products?	4B-E 14J-Q, S	4 5 11	5 10		RLST 11-12.1 RLST 11-12.3 WHSST 11-12.4 WS 11-12.6 WS 11-12.7
10. In groups, students will research and write a paper on a controversial legal or ethical topic surrounding HIPAA, patient confidentiality, patient arbitration, advance directives, or any healthcare laws or medical ethical guidelines of their choice. Students will develop their arguments and participate in a debate or panel discussion with classmates.	1A-D 2D 4A-F 14L, S 15A-G	1 2 4 5 7 9 11 12	2 4 5 7 9 10	B5.0 C7.0 C12.0 C14.0	LS 11-12.1 LS11-12.2 LS 11-12.6 RLST 11-12.1 WHSST 11-12.2 WS 11-12.6 WS 11-12.7

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.

Health Science and Medical Technology – Healthcare Administrative Services

C4.0 Know the role and relationship of public policies and community engagement on the healthcare delivery system.
C7.0 Follow the model of medical safety practices and processes that can help prevent system medication errors and understand the consequences of mistakes.
C12.0 Understand how to use health information effectively.
C14.0 Understand how to transfer information to third-parties.

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 be 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 additional, 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)

MATHEMATICS

Number and Quantity

N-Q 1: Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.
N-Q2: Define appropriate quantities for the purpose of descriptive modeling.
N-Q3: Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

SCIENCE

Physical Science

PS 1.B: Chemical Reactions