INTRODUCTION TO HEALTH SCIENCE AND MEDICAL TECHNOLOGY

I. Course Description
A. UC/CSU “a-g” Subject Area: G Elective
B. Rational for Course:
This course is based on California CTE Content Standards for Health Science and Medical Technology and the California Common Core State Standards for Literacy in History/Social Studies, Science and Technical Subjects as outlined below. This course was created to prepare and serve students who are interested in the medical field and will allow these students to continue on to the advanced year two pathway course which will provide college credit as well as the technical knowledge necessary to obtain employment in the industry.
C. Grade Level: 9-12
D. Credits: 10
E. Pre-Requisites: None
F. Course Description:
The CTE Introduction to Health Science and Medical Technology course will provide a solid foundation for the medical, science, reading, writing and math skills that are used in the allied health professions, while exploring the many career opportunities in the healthcare industry. Topics of study include medical terminology, human body systems and diseases, as well as medical ethics, conduct, legal responsibilities, and general medical safety. Major units of study include: Healthcare Foundations, Human Anatomy, Careers in Therapeutic Services, Careers in Diagnostic Services, Careers in Health Informatics and Careers in Support Services. Students who achieve competency in this course will develop both subject specific and inter-disciplinary knowledge and skills required for entry into healthcare occupations and meet the requirements for the advanced, year two course in Emergency Medical Response.

II. Course Purpose: Goals and Student Outcomes
Upon successful completion of the course:

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<th>A. Students will understand the definition, spelling, pronunciation, and use of appropriate terminology in the healthcare setting.</th>
<th>Foundation Standards: 1.0, 10.0 Pathway Standard: B5.0 CC RS: 1, 4 CC LS: 6</th>
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<td>B. Students will recognize and practice components of an intake assessment relevant to patient care.</td>
<td>Foundation Standards: 6.0, 10.0 Pathway Standard: B4.0 CC RS: 3 CC WS: 2</td>
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<td>C. Students will demonstrate health and safety procedures, regulations, and personal health practices as related to the Health Science and Medical Technology sector workplace environment.</td>
<td>Foundation Standard: 6.0 Pathway Standard: B10.0, B11.0 CC RS: 3, 4 CC WS: 4 CC LA: 6</td>
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<td>Foundation Standard</td>
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### III. Course Outline:

#### A. Healthcare Foundations:
Introduction to the healthcare system, safety, first aid, medical terminology, anatomy, diseases, vital signs, medical mathematics, nutrition and legal aspects as well as the basics needed to be a member of any medical professional organization.
Standards Addressed - B7.0, B9.0, B.0, 6.0, B10.0, B11.0, B2.0

#### B. Careers in Therapeutic Services:
Introduction to medical careers and procedures having to do with therapy services such as EMT, nursing, mental health, respiratory care, alternative medicine, pharmacy, sports medicine, and dental care.
Standards Addressed - 4.0, 10.0, B8.0, 5.0, 6.0, B1.0

#### C. Careers in Diagnostic Services:
Introduction to medical careers and procedures having to do with diagnostics such as radiology, medical testing, laboratory, and ophthalmic care.
Standards Addressed - 6.0, 10.0, B4.0, B10.0, B11.0

#### D. Careers in Health Informatics:
Introduction to the various careers in the administrative side of the medical world. Students will receive customer service training and health information guidance.
Standards Addressed – 6.0, 10.0, B4.0, 8.0, B13.0
E. Careers in Support Services:
Introduction to dietetics and central supply and processing including how these fit into each medical profession including resume creation and interview techniques.
Standards Addressed – 8.0, B13.0, 6.0, B10.0, B11.0

IV. Key Assignments:
All Health Science & Medical Technology Students will be able to experience:
Alignment of Key Assignment to California CCSS for Literacy in History/Social Studies, Science, and Technical Subjects is indicated in parenthesis.

- Food Revolution Nutrition Unit Group Project, Power Point and Oral Presentation (WS: 6,9, SL: 2-4))
- Medical Terminology Creative Project (SL: 2,4, WS: 6,8)
- Medical Article Opinion Paper & Socratic Seminar (RS: 1,2,4,6, SL: 2, WS:1)
- Anatomy Diagram Projects (WS:7)
- Disease Research Paper (WS: 4,5,7,8, RS: 1,4)
- Vital Signs Labs (RS: 3, WS: 8)
- Resumes and Career Exploration (WS: 4-5)

V. Instructional Methods/Strategies:
- Computer/Web Programs (MS Office programs, You Tube)
- Instructional material, DVD’s, Internet
- Research skills using internet and literature resources
- Lectures
- Literature Circles
- Power Point presentations
- Textbook Online Forum
- Close Notes & Cornel Notes
- Labs
- Socratic Seminar
- Project-based learning
- Online virtual labs
- Cooperative learning group work
- Industry journal articles

VI. Assessment Methods/Tools:
- Projects
- Oral Presentations
- Short answer and multiple choice tests
- Research papers
- Collaborative Discussion
- Reading Analysis
Final Semester Cumulative Exams
In-class daily journals
Labs
Power Point/Video Presentations

VII. **Textbook and Supplemental Instructional Tools:**
- Guest speakers from public/community health (local clinics, EMR)
- Case study materials and medical journals
- Videos:
  - Sick Around America
  - Fat, Sick & Nearly Dead
  - Food, Inc.