

**FULL TITLE:**            **Medical Emergencies in Dental Practice****SEMESTER:**            Fall 2021        Year 1, Semester 1**COURSE DESCRIPTION:**

This course provides the student with the basis in prevention and management of medical emergencies in the dental office. Instruction is given in health evaluation utilizing health history and vital signs. Emphasis is on the recognition of clinical signs and symptoms of emergencies and the prevention of emergency escalation. The management of medical emergencies is outlined along with drugs and equipment utilized in an emergency.

**CONTACT HOURS:** 1 hour lecture**WEEKS:**                17.5**UNITS:**                1**DAY & TIME:**        Tuesday 2:00-3:00, Race 4024

**INSTRUCTOR:**        Michael Danford, DDS  
E-mail: [mdanford@santarosa.edu](mailto:mdanford@santarosa.edu)  
Office hours: Tuesdays 3:00-3:30 and by appointment  
All electronic communication will be conducted through the email address you have registered with the school.

**LECTURE RATIO:** 1:24

**PREREQUISITES:**    Evidence of Satisfactory completion of a course in Healthcare Provider CPR by the American Heart Association or Red Cross HeartCode or Instructor-led BLS – AHA  
CPR for Healthcare Providers – American Red Cross

**COREQUISITES:**     DH 70, DH 71A**REQUIRED TEXTBOOK:**

- Medical Emergencies in the Dental Office, 7<sup>th</sup> edition, Malamed, Stanley 2015
- Lexicomp Online for Dentistry – online drug and medication information
  - Access instructions: Students can go to the library website at [libraries.santarosa.edu](http://libraries.santarosa.edu) and click on the "Articles and Databases" tab and click on the option to "Go directly to a database". From there you can select "Lexicomp Online for Dentistry" and you are in! If you are off campus, you will be asked for your 9-digit student ID and PIN (the same ones you use to get into your portal). If you are on campus, you can go straight to the database.

**LECTURE MATERIALS:** All lecture materials are found on the SRJC website CANVAS

**ONLINE MATERIALS:** A CANVAS online site will be utilized for this class. Students are responsible for checking the site daily for announcements and helpful supplemental materials. Students must also maintain a valid e-mail address with the College so that communications issued through this site are received.

**cFall 2021**-Lecture will be face to face on campus. The Santa Rosa campus may have limited services. Library, cafeteria or other student services may be available online or have limited hours on campus. If we experience any interruptions of not being face to face, this course lecture will run synchronously at our scheduled class time via Zoom. Below are the following guidelines for zoom lectures:

- Students will be required to attend a presentation, participate in a proctored exam (some midterms and final examinations will be face to face on campus), log into a class and participate in a discussion or an assignment at the same time, or simultaneously watch a video.
  - "Quizzes and Exams"- Video required to be on during quizzes and exams (accreditation requires proctored exams)
  - Lecture-"Highly recommend" to have video on at all times during lecture, you will be expected to be present, answer in discussions, be a part of break-out rooms, etc. If you don't feel comfortable having your video on, please see me to discuss.

#### Student Netiquette Guide for Distance Learning

- It is important to recognize that the online classroom is in fact a classroom, and certain behaviors are expected when you communicate with both your peers and your instructors. These guidelines for online behavior and interaction are known as netiquette.
- The purpose of the following information is to help you be a more effective and successful student when communicating via e-mail, chat rooms, or on discussion boards as a part of your distance learning activities at Santa Rosa Junior College.
- Be careful with personal information (both yours and other's)
- Do not send confidential information via e-mail
- Dress appropriately- The best part of actually getting ready is that you'll feel more focused to take on the virtual meeting
- Be aware of your surroundings- choose a quiet, professional looking space, no distractions, and no driving while on zoom lectures
- When testing, you must have a cleared area, no other papers or anything in the background.
- Mute your microphone when you're not talking to eliminate echo background noise, unless asked to have audio on during testing
- Stay seated and stay present-you must have your video on at all times during lecture

#### OUTCOMES AND OBJECTIVES

**Student Learning Outcomes:** Upon completion of this course, at the novice level as defined in the program's competency statements the student will be able to:

1. Discern and manage the medical emergencies potentially occurring in the dental

- hygiene practice in a rapidly changing health care environment.
2. Acquire and synthesize health-related information in a critical, scientific, and effective manner.
  3. Systematically collect, analyze, and accurately record baseline data, on the general, oral, and psychosocial health status of patient.

**Objectives:** Upon completion of this course, the student will be able to:

1. Apply theoretical and practical knowledge, including physiological and psychological concepts, in preventing medical emergencies in the dental office.
2. Apply theoretical and practical knowledge, including physiological and psychological concepts, in responding to medical emergencies in the dental setting.
3. Recognize and respond to the signs and symptoms of the most common medical emergencies that occur in a dental office and discuss the importance of a thorough medical history for each patient.
4. Analyze emergency situations and implement appropriate protocols.
5. Obtain, interpret, and evaluate a completed medical and dental history for every patient.
6. Communicate effectively in interactions with the emergency health care providers and patients.
7. Demonstrate critical thinking behaviors in responding to emergency situations.
8. Recognize and prepare the items commonly found in a basic emergency kit.
9. Recognize and operate the equipment necessary to manage a medical emergency in a dental office.
10. Understand the "team approach" to prepare the dental team for medical emergencies.
11. Take, evaluate, and record the patient's vital signs and recognize the significance of vital signs in relation to patient health history and patient treatment.
12. Demonstrate the utilization of the Lexicomp Online for Dentistry drug reference in relation to health history and treatment planning.

#### **TOPICS TO BE COVERED IN THIS COURSE:**

1. Preventing medical emergencies
  - a. Complete and updated health history
  - b. Patient vital signs
  - c. Stress management
  - d. Lexicomp Online for Dentistry drug reference
2. Emergency preparedness
  - a. Staff preparation Cardio Pulmonary Resuscitation
  - b. Role of each staff member
  - c. Role playing
  - d. Early recognition
  - e. Effective communication
3. Medical emergency procedures
  - a. Site-specific (e.g. SRJC, dental office) emergency protocol
  - b. Emergency drugs and devices
  - c. Patient airway maneuvers

- d. Emesis
  - e. Foreign body removal
- 4. Differential diagnosis and management of the unconscious patient
- 5. Differential diagnosis and management of altered consciousness
- 6. Recognition of signs and symptoms and management of specific conditions
  - a. Syncope
  - b. Hyperventilation
  - c. Angina pectoris
  - d. Cardiac arrest
  - e. Myocardial infarction
  - f. Respiratory arrest
  - g. Asthma
  - h. Epilepsy
  - i. Cerebrovascular accident (stroke)
  - j. Allergy
  - k. Anaphylactic shock
  - l. Diabetes
    - i. Hypoglycemia
    - ii. Hyperglycemia
    - iii. Diabetic Ketoacidosis
    - iv. Insulin shock
    - v. Diabetic coma
- 7. Basic Emergency kit
  - a. Injectable medications
  - b. Emergency adjuncts
  - c. Oxygen administration
  - d. AED
  - e. Update and maintenance

## **COMPETENCY AND CURRICULUM MAPPING**

Refer to the Competency Statements and Curriculum Mapping found in your Student Clinical Policy Manual to determine the program competency and the level (novice, beginner, competent) you will achieve in this course. Competencies for this course are at the novice to beginner level.

## **METHODS OF INSTRUCTION**

Lecture and discussion of course material

Reading assignments

Clinical demonstrations

Case based instruction utilizing critical thinking

Online access to course materials

## **REQUIREMENTS AND GRADING INFORMATION**

### **METHODS OF EVALUATION:**

- Online quizzes, written midterm and final examinations

- Written reports
- Objective structured clinical exams

## **COURSE GRADING CRITERIA**

<b>Quizzes</b> (10 total @ 5 points each)	50 points
<b>Midterm Exam</b>	50 points
<b>Individual Assignments</b>	45 points
Abstract	10 points
Quick guide	15 points
Ideal dental office guide	20 points
<b>Medical Emergency Scenario Evaluations</b>	
3 Scenarios @ 10 points each	30 points
 <b>Final exam</b>	 100 points
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Total	275 points

**Reading Assignments:** All reading assignments should be completed **before** the beginning of lecture. You are responsible for all information presented in the readings even if this material is not discussed in lecture. Due to the volume of course material, independent study is required. Students must come to class prepared to discuss all reading assignments. Please make note of anything you do not understand for further clarification in class

**Quizzes** (50 points) - Due to the limited amount of class time, weekly quizzes will be completed prior to the class utilizing the CANVAS system. Quizzes will cover the reading assignments for that week. The quizzes should be available on CANVAS for one week up until the start of class. No late or make up quizzes will be allowed.

**Midterm** (50 Points) – Covering lecture and reading material through week 8

## **INDIVIDUAL ASSIGNMENTS**

**Research Abstract - Due 09/28 - Week 7** (10 points) Each student will be required to select a scientific article from a list provided related to management of medical emergencies. Once the student has selected an article, the student will use guidelines provided to critically evaluate and summarize the article.

## Abstract Article Evaluation Rubric

Criteria	All Criteria Met 2 points	Most Criteria Met 1 point	Criteria Not Met 0 points
Format: Double Spaced Grammar and spelling checked	Properly formatted	Minor formatting error	Not formatted
The Objective/Purpose of the Study	Clearly Stated	Stated, but unclear	Not fully addressed
Research Method/Approach	Clearly Stated	Stated, but vague/unclear	Not fully addressed
Results	Clearly Stated	Stated, but confusing/not easy to understand	Not Well Stated, missing outcome
Conclusions	Clearly Stated	Attempted to summarize, unclear	Not Well Stated / Missed the point of the study

### Quick Reference Emergency Management Guide – Due 11/23 - Week 15 (15 points)

Throughout the semester we will cover specific medical emergencies most likely to occur in the dental office. As we complete each topic, we will develop a quick guide or flow chart to patient management. At semester's end each student will have accumulated several "quick guides." The student will create a collection of guides/flow charts which may be used as a clinical resource for quick reference during medical emergencies.

### Ideal Dental Office Guide - due 11/30– Week 16 (total 20 points)

Every dental office must be prepared for handling medical emergencies. In the lecture and textbook, we will cover the equipment, medications and training for the ideal office. As you go into practice, you should be able to evaluate your offices and help ensure the safety of your patients and coworkers. In this assignment, you will create the ideal office safety plan.

Your plan must include, at a minimum:

- Equipment, medications, storage and availability of safety items, checking and updating equipment and medications
- Initial and ongoing training, practice drills
- Signage and record keeping
- Responsibility for all aspects of the office plan

Using the criteria for an effective emergency management system presented in your text and in class, create the ideal emergency system in a dental office/clinic in the community.

**Written Paper:** A 400 + word paper using APA style. This means the paper will include a cover page, intro, body, conclusion, article citations and a reference list. Grading will emphasize the completeness of your paper and that all features of the emergency system are included.

## Grading Rubric for Dental Office Paper

Criteria	All Criteria Met 10 points	Most Criteria Met 7 points	Criteria Not Met 0-5 points
Organization: Complete, Format: APA, Double Spaced, >400 words	Properly formatted	Minor formatting errors	Not formatted;
Office Analysis	All aspects of office systems examined	Missing some office information	Gross errors or missing information
Conclusions, references	Appropriate, clearly stated plan	Inappropriate or incorrect plan	Missing significant plan items

## Medical Emergency Scenario Evaluations – Due 12/07 – Week 17 (total 30 points)

There will be several possible emergency scenarios for you to work through with Dr. Danford, based on conditions seen in the dental office: Unconscious Patient (syncope, orthostatic hypotension); Altered Consciousness (hypoglycemia, CVA); Respiratory Distress (asthma, foreign body obstruction, anaphylaxis); Seizure, and Chest Pain (angina, myocardial infarction). The evaluation sheet is posted on CANVAS for you to review. We will use Zoom or in-person (if possible) for individual meetings, and Dr. Danford will randomly select three scenarios for you. You will need to accurately determine the medical emergency in the scenario, and talk through the steps you would take to resolve the emergency in the SRJC clinic setting. These evaluations will need to be scheduled between 11/16 and 12/07. More information on scheduling these evaluations will be posted to CANVAS.

## Clinical Examination Grading Rubric:

Medical Emergency Response Criteria	Acceptable (5 pts)	Needs Improvement (3 pts)	Not Acceptable (0 pts)
<b>Recognize:</b> recognizes medical emergency is occurring and stops all assessments and/or treatment.			
<b>Evaluates:</b> evaluates situation and takes appropriate action such as activating response team and evaluating level of consciousness.			
<b>Position:</b> places patient in appropriate position.			
<b>Implementation of Emergency Protocol:</b> provides emergency treatment based on signs and symptoms of patient.			

<b>Administration:</b> administration of oxygen, emergency medications and adjunct therapies is correctly identified.			
<b>Follow-up:</b> properly discharges patient and gives accurate information, understands SRJC dental hygiene clinic emergency protocol.			
<b>Documentation:</b> adequately explains what documentation needs to be included in the chart write-up.			

A = Acceptable: consistently correct, if initially incorrect, readily identifies error and self-corrects

NI = Needs Improvement: inconsistent, or consistently incorrect

NA = Not Applicable

Student must get 27/35 on each scenario (75%) to pass

**Final Exam** (100 points) The final exam is cumulative. Date and time for the final exam should be posted near the beginning of the semester

Examinations/quizzes are not returned to the student – if you would like to review your exam, please plan to make an appointment to meet me in my office for this review. All exams will be kept until 30 days after the end of the semester and then disposed of appropriately. Note: exam review will not be scheduled in the last week of the semester; please plan to request the review of your exam before this time.

### **FINAL COURSE GRADE**

The final course grade will be taken from the total of all available points, and will be based on the Department Grading Scale

### **GRADE SCALE:**

93-100%	= A
85 - 92%	= B
75 - 84%	= C
65 - 74%	= D

A total score less than 75% requires repeating the course and/or remediation.

### **COURSE STANDARDS**

- Students must achieve a minimum of 75%. Failure to do so will result in a grade of "D" or lower in the course and failure of the course.
- There will be no make-up tests or assignments – you must be on time and attend the entire class to be entitled to take the test or submit an assignment.
- All assignments are expected to be the individual student's work.
- Any papers/assignments must be professional in presentation, neat and organized.
- Academic Integrity - All written work is to be original; plagiarism of any kind will result in a failing grade on that assignment. Students who plagiarize or cheat may be suspended – for one or two class meetings by the instructor – and referred to the Conduct Dean for discipline sanction, in cases of egregious violation. Please see District Policy 3.11 and 3.11P on Academic Integrity



- ALL requirements for this course must be met; failing to meet any requirement will result in a failing grade for the course.
- During lectures, please respect your classmates and limit extraneous talking or conversations.
- The best way to learn is through active participation; therefore, we respect others by being on time, listening actively and by being polite even when we disagree with another's viewpoint.
- Electronic devices may be beneficial in the classroom and also distracting when they are used inappropriately. The use of any electronic device; computer, pad, phone and/or watch will only be used for direct class enhancement and/or to refer to information that is presented for this subject.
- Students are expected to attend all class sessions and be prepared to discuss assigned reading and other assignment at a collegiate and professional level.
- Professional, self-motivated and cooperative behavior is expected.
- Any student with a disability (e.g. physical, learning, psychological, visual, hearing, etc.) who needs to arrange accommodations must contact the instructor and Disability Resources Department the first week of the semester. All testing arrangements must be made at least two weeks prior to the exams.

#### **INSTRUCTOR ASSISTANCE:**

All students are encouraged to seek assistance from the course instructor. If you have any questions concerning assignments, content, etc., or if a problem arises that warrants instructor help, please do not hesitate to schedule an appointment with the course instructor at your earliest convenience.

### **GETTING THE HELP THAT YOU NEED IS YOUR RESPONSIBILITY**

#### **REMEDIATION:**

Any student achieving less than 75% on all quizzes and tests is required to arrange a meeting with the instructor to discuss deficiencies in their grade and arrange potential remediation.

#### **PROFESSIONALISM:**

Santa Rosa Junior College's Dental Hygiene Program believes that professionalism is an essential component to the development of a health care provider. Our program strives to nurture and develop strong levels of professional behavior. All dental hygiene students are expected to demonstrate professionalism in behavior, communication, patient privacy and judgment in the dental clinics, classrooms, and clinical rotation sites. All clinical and classroom faculty will offer feedback for this development by formal and informal means. Repetitive instances of non-professional behavior or speech at any time during participation in the Dental Hygiene program will not be tolerated and may result in program dismissal.

A review of expectations and criteria for Professionalism is found in the Dental Hygiene Policy Manual.

#### **QUALITY ASSURANCE:**

Refer to the Quality Assurance plan found in your Dental Hygiene Policy Manual to review

the assurances designed to ensure that the dental hygiene program adheres to the standards of care.

### **HIPAA STATEMENT**

As a student at SRJC Dental Hygiene program, you have a legal and ethical responsibility to safeguard the privacy of all patients and protect confidentiality and security of all health information. Protecting the confidentiality of patient information means protecting it from unauthorized use or disclosure in any format: oral, FAX, written or electronic. Patient confidentiality is a central obligation of patient care. Any breaches in patient confidentiality or privacy may result in disciplinary action, up to and including dismissal from the program.

### **STUDENT HANDBOOK AGREEMENT**

It is the responsibility of all students enrolled in the dental hygiene program to read and comply with all policies found in the Dental Hygiene Policy Manual. Failure to do so may result in dismissal from the program.

### **ATTENDANCE POLICY**

Students are expected to attend all sessions of the course in which they are enrolled. Students are expected to be prepared and to begin class on time. A student may be dropped from the class when that student's absences exceed 10% of the total hours of class time - no more than 2 hours of lecture. Unless state or federal law requires that the absence be deemed excused, no instructor shall be required to make a distinction between excused and unexcused absences.

Students missing class/clinic time, before the 10% maximum, may be required to write a paper on the material missed.

**TARDINESS:** Please Refer to the Dental Hygiene Policy Manual, Section 4 – Students are expected to be present in the class at the scheduled beginning time and remain until the end of class. Tests are given at the beginning of class. If you are tardy to a class you will have less time to take the scheduled test.

The total amount of time tardy or early leaving cannot exceed the 10% attendance maximum. Arriving late for lecture or lab disrupts the instructor and your fellow classmates. Students will not be allowed to enter the class late if it interrupts class instruction, if the door is closed please wait until the instructor opens it at a natural break in the instruction

**DISABILITY RESOURCE DEPARTMENT:** Please refer to your Dental Hygiene Policy Manual, Section 2 for this information.

**EMERGENCY EVACUATION PLAN:** Please refer to your Dental Hygiene Policy Manual, Section 5 for this information.

**COURSE ETHICS:** Please refer to your Dental Hygiene Policy Manual statements regarding Academic Integrity (District Policy 3.11 & 3.11P - [www.santarosa.edu/polman](http://www.santarosa.edu/polman)), Academic Honesty, Plagiarism, Academic Dishonesty, Professionalism and Ethical Conduct

**ACADEMIC GRIEVANCES:** Please refer to District Policy 8.22 & 8.22P – ([www.santarosa.edu/polman](http://www.santarosa.edu/polman)) for the procedures you have available to you to express complaints or grievances. Your Dental Hygiene Policy Manual, Section 4 has an outline of these procedures as well.

**DISMISSAL POLICY:** Please refer to your Dental Hygiene Policy Manual, Section 4 for this information.

#### **AGREEMENT WITH STUDENTS**

Continued registration in this course means that you agree to the policies and procedures outlined in this syllabus. The syllabus/CANVAS site is intended to give the student guidance in what may be covered during the semester and will be followed as closely as possible. However, the instructor reserves the right to modify, supplement and make changes as the course needs arise.